ARCHAEOLOGY IN NEWFOUNDLAND & LABRADOR

1986

EDITED BY
J. CALLUM THOMSON
JANE SPROULL THOMSON

Annual Report No. 7

NEWFOUNDLAND MUSEUM
HISTORIC RESOURCES DIVISION
DEPARTMENT OF MUNICIPAL AND PROVINCIAL AFFAIRS
GOVERNMENT OF NEWFOUNDLAND & LABRADOR

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Edited by: J. Callum Thomson
Jane Sproull Thomson

Newfoundland Museum
Historic Resources Division
Department of Municipal and Provincial Affairs
St. John's, NF

April, 1989

Cover: Burial 57, Red Bay Basque Whaling site, southern Labrador
(see James Tuck report).

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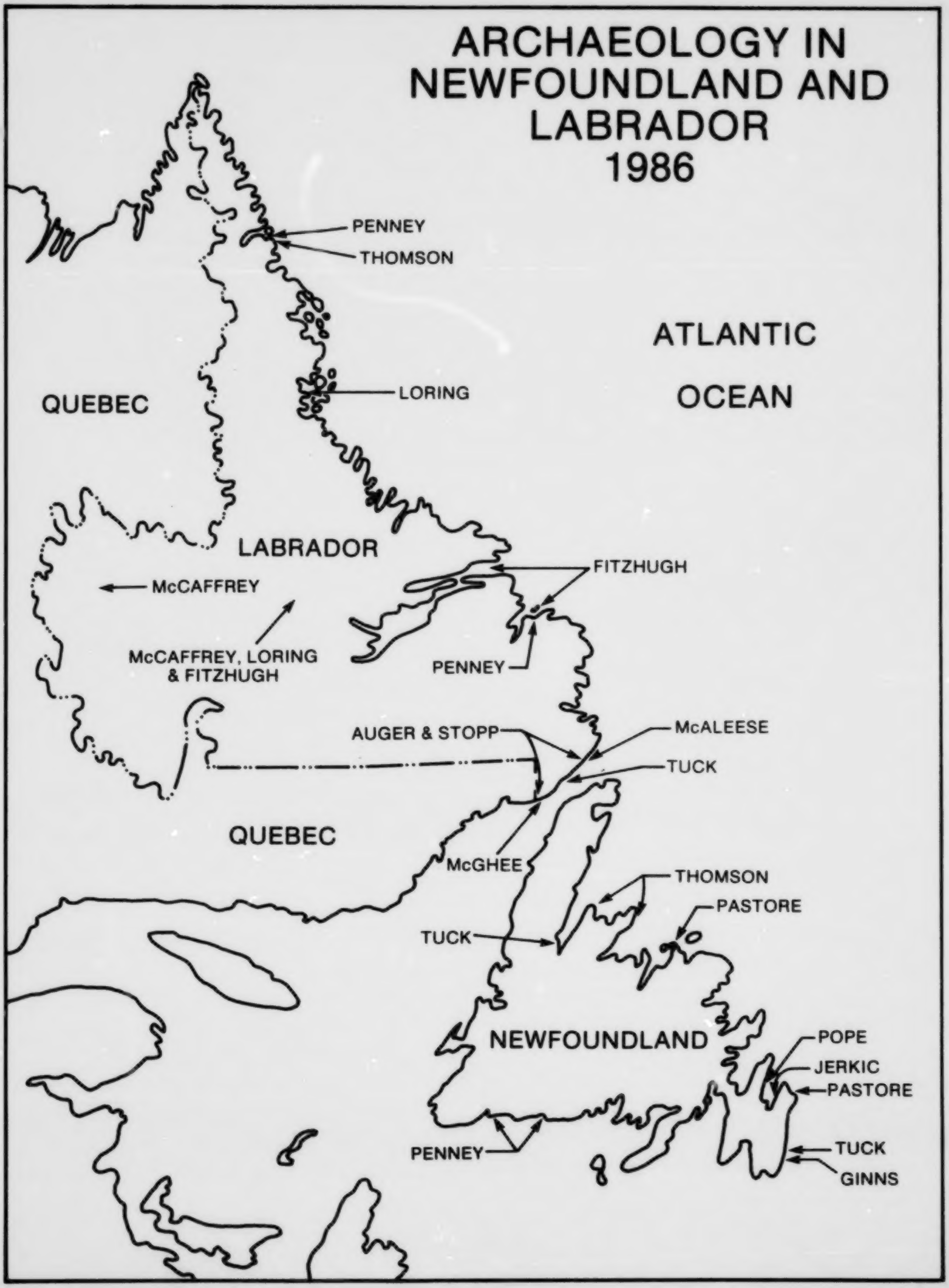
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ARCHAEOLOGICAL RESEARCH IN NEWFOUNDLAND AND LABRADOR - 1986

J. Callum Thomson
Newfoundland Museum

FIELD RESEARCH

Note: The summary of fieldwork draws upon a preliminary compilation by Gerald Penney during his temporary assignment as Curator of Archaeology at the Newfoundland Museum (Penney 1987).

Field research in Newfoundland and Labrador continued the trend toward increasing activity in historic archaeology and environmental impact assessments noted over the past few years. Of the twenty-four archaeological research permits issued in 1986 to fourteen researchers sixteen were for specific research projects -- nine concentrating on the historic period -- while eight were to assess potential development impacts on historic resources. Additionally, Parks Canada sponsored fieldwork at the Port au Choix National Historic Site.

In Labrador, Gerald Penney assessed the impact by the Department of National Defence on historic resources of the construction of two long range radar facilities at Saglek and Cartwright. A survey of the Cartwright project area failed to locate any sites. A brief excursion outside the study area located a large stone house relating to Major George Cartwright's stay on the south Labrador coast (1770-86). Six prehistoric sites were inspected near the project area at Saglek and were judged not to require any mitigation.

A one-day survey by Callum Thomson and Penney of the area between Cape Uivak and White Point, south of the Saglek development, recorded 18 new sites. Maritime Archaic longhouses, other boulder features and/or surface lithics were found at ten sites, Middle Dorset material at two, and Neo-Eskimo remains at thirteen.

A coastal survey by William Fitzhugh between Goose Bay and Cartwright located new and revisited formerly-recorded Groswater, Intermediate Indian, Middle Dorset and Neo-Eskimo sites on the mainland and offshore islands.

Stephen Loring spent several weeks excavating a Late Point Revenge site at Tikkoatokak Bay near Nain to clarify the relationship between the late prehistoric Point Revenge complex, its antecedents, and the succeeding Innu groups of the historical record. In addition, Loring sought to understand the mechanisms of maintenance of social boundaries and ethnic identities among prehistoric and historic Indian groups in Labrador.

A survey at Seal Lake, northwest of Goose Bay, by Fitzhugh, Moira McCaffrey, and Loring resulted in the location of historic Naskapi camps and several large Innu winter camps but disappointingly little evidence of prehistoric activity. Efforts failed to delineate the source of Seal Lake cherts, abundant at coastal sites during the prehistoric period. It is now suspected that the source locations must lie east of Seal Lake.

McCaffrey surveyed three lakes in Western Labrador for lithic sources and located five sites on Menihek Lake with raw material of the Wishart chert formation. McCaffrey includes in her report a well-deserved chastisement of Thomson and Penney for their (separate) generalizations on the paucity of prehistoric remains in western Labrador. A survey of Petitsikapau Lake by McCaffrey included a visit to the site of Fort Nascopie, a Hudson's Bay Company post (1830-60).

Kevin McAleese investigated the vernacular architecture of a late 18th century fishing/sealing/fur trapping settlement at Stage Cove, 80 km northeast of Red Bay. George Cartwright's Journal vaguely describes his construction of a dwelling and store house, servants' quarters and various shore facilities. McAleese's excavations revealed seven features representing these structural remains and 1000 artifacts including fragments of bottle, lantern and beverage glass, ceramics, various iron and copper items and such organic materials as leather, feathers and a small faunal sample.

James Tuck's team from Memorial University of Newfoundland, aided by the Canadian Conservation Institute, continued excavations at the Basque whaling site at Red Bay. On Organ's Island a large, but little used, tryworks of six fireboxes was excavated, while on Saddle Island a second tryworks was partially exposed. The rendering ovens have not been exposed but post molds of a 30 by 32 foot structure were established. Near this structure are a number of Recent Indian hearths containing Little Passage and Point Revenge style projectile points as well as roof tiles, nails, cut baleen and European leather. During the excavation of a Middle Dorset site, near the whalers' cemetery, several additional 16th century graves were encountered. An unusually deep burial produced the remains of an individual upon whose chest rested a large wooden cross, the first item of grave goods in more than 60 burials excavated to date (see cover illustration).

Reginald Auger and Marianne Stopp conducted a survey initiated by the Historic Resources Division with partial D.R.I.E. funding to assess site attrition and the potential for further research, protection and tourism development in southern Labrador. Their team surveyed the north shore of the Strait of Belle Isle from the Quebec/Labrador border to Cape Charles. Seventy-five new sites were located. Site distribution ranges from Maritime Archaic through early and late Palaeo-Eskimo, Recent Prehistoric Indian, Labrador Inuit, Basque, and other European. A rectangular, sod block Inuit house of the late 18th century was excavated on Seal Islands near Henley Harbour, where 11 other Inuit sites were discovered in close proximity to European shore stations.

Robert McGhee's report on a 1985 survey in southern Labrador, inadvertently omitted by the editors from the 1985 Annual Report, is included this year. McGhee revisited the L'Anse Amour site, noting new boulder structures similar to longhouses and, perhaps, a "roadway" like those reported by other investigators in Maritime Archaic sites in central and northern Labrador.

On the Island, Priscilla Renouf continued her Parks Canada-sponsored excavations at Phillips Garden, Port au Choix; her surveys resulted in the discovery of sixteen previously undiscovered sites. The Point Riche site with some thirteen house depressions is about one third the size of Phillips Garden. Radiocarbon dates from Point Riche (2000-1200 BP) are contemporaneous with Phillips Garden and there is similar material culture. At Phillips Garden East, Brenda Kennett excavated a Groswater site which yielded a large faunal sample and three types of harpoon heads. This site, dating to ca 2600 BP, shows typological similarities to the Early Dorset sites of Labrador and Independence II sites of the Arctic. Reports on the Port au Choix investigations can be obtained from the investigators or from Parks Canada, Halifax.

Tuck completed an earlier environmental impact assessment of the Main

River area with a survey of selected areas. An inspection of the Pittman site on Sop's Island, included in the original terms of reference for this timber management project, found that this significant Dorset and Maritime Archaic site has stabilized well since the original investigation by Linnamae (1975) and is in no danger from this development.

Penney conducted three historic resources overview assessments including a joint-venture survey with the Historic Resources Division in connection with BP/Selco's new gold mine near Grand Bruit on Newfoundland's southwest coast. Two Recent Prehistoric Indian sites were discovered in Couteau Bay near the docking facility for the Hope Brook Gold Mine. These sites, one of which has a historic Beothuk component, are being monitored. The routes of Newfoundland Hydro's transmission line to the mine and to the town of Burgeo were assessed for historic resources. The line to the mine parallels a 19th century telegraph route belonging to the New York, Newfoundland, and London Telegraph Company and its ancillary facilities. Penney also surveyed the coastline of White Bear Bay, east of Burgeo, for possible impacts on historic resources resulting from its designation as a remote cabin development area.

At Fleur de Lys, on the Baie Verte Peninsula, Thomson directed excavations by Scott Biggin and a crew of local students at the habitation site associated with a Dorset soapstone quarry. The quarry has long been a place of interest to local residents, tourists and students of archaeology, being initially recorded by Howley (1915). The Middle Dorset occupation, dated in 1985 at AD 400-700 was further delimited; new evidence indicates extensive exploitation of the area by Maritime Archaic peoples. The quarry site is being developed for tourists with the construction of a board walk, placement of interpretive signs and exhibits, and visitor tours given by local residents. A Middle Dorset site was found on Granby Island, White Bay, and three loci were delineated at the extensive Nippers Harbour Maritime Archaic site.

Ralph Pastore continued his investigation of Beothuk occupation in Notre Dame Bay where he re-visited the Inspector Island site previously tested in 1982. Initial excavations revealed an extensive Little Passage occupation (AD 1300) below a Beothuk level. It was found that serious erosion has occurred along the western edge of the site. A future salvage excavation and a stabilization project are planned.

Peter Pope carried out an archaeological survey of older communities in Conception Bay with the aim of documenting early occupations. At Bristol's Hope, an assemblage of North Devon coarse earthenware, tin-glazed earthenware, case bottles and clay pipes is typical of a mid-17th century occupation. Similar material from Clown's Cove appears slightly later.

At Foxtrap, Sonja Jerkic responded to a police request for identification of skeletal remains. The burials appear to be of a pre-1900 European young adult female and child.

Renovation of the George Street area of St. John's was monitored by Pastore for any disturbance or destruction of historic resources. The project, involving street and sidewalk paving renovations, did not go beneath what was apparently fill, as most artifacts dated to the mid-19th century and later.

Tuck continued his research at the site of George Calvert's (later the first Lord Baltimore) Colony of Avalon at Ferryland, about 80 km south of St. John's. Excavations at the original forge, which was completed in the summer of 1622, produced a variety of associated material dating prior to 1650. At this time the forge apparently fell into disuse and the hillside excavation in which it was built filled with refuse. Work at a second area closer to the inner harbour revealed evidence of a large stone foundation built at the time of the original settlement and destroyed some time in the late 17th century, possibly in a Dutch raid of 1673. Below this structure is a deeply stratified deposit containing smoking pipes, ceramics and glass from the late 16th/early 17th century. An underlying layer of fire cracked rock yielded flakes of coarse chert and a broken biface indicating an Indian occupation of the 16th century, the first good evidence of Indian expansion to the extreme east coast of the Island. A basal stratum of North Devon ceramics suggests a seasonal occupation prior to the 1570s.

The Newfoundland Marine Archaeology Society (NMAS) undertook a survey of a wreck site at Port Kirwan, about 90 km south of St. John's (see Ginns paper). The site's depth of 26 m limited divers' bottom times and a 1 m visibility and an average water temperature of 4°C presented additional problems; however, a substantial data base was established. The remains of the vessel appear flattened and lie in a thick deposit of biogenous mud. The extent of the hull and the dimensions of exposed structural elements, together with the location of ballast, guns and a varied inventory of artifacts indicate a comparatively large, armed, 17th century vessel. Volunteer divers provided information about other wrecks in Fermeuse Harbour, one of which appears to date from the 17th century.

With the exception of the Port au Choix investigations, these projects are reported upon in this volume; in most cases papers are of a preliminary nature. Other permits which were issued are as follows: Tuck (86-12) had no findings to report from a survey on the east coast of the Great Northern Peninsula. Perry Moulton's survey (86-19) of Notre Dame Bay has not been reported upon. Copies of the original and more detailed final reports on environmental impact assessments, and the NMAS and Jerkic projects may be obtained upon application to this office. Further details on projects such as those by Thomson at White Point, Loring, McCaffrey, McAleese, and Kennett are included in theses and dissertations completed or in progress and may be sought from the authors. A major volume on Tuck's Red Bay investigations is also in progress. The final report of the Auger and Stopp survey of the Strait of Belle Isle has been received by the Historic Resources Division; copies may be obtained from this office. Auger is completing a dissertation on Inuit and other historic occupations of the Strait of Belle Isle. The Fleur de Lys and other continuing work on the Baie Verte Peninsula is being compiled in a final report of investigations in the area by Thomson. Pastore's work at Inspector Island and Tuck's at Ferryland are ongoing projects which will be reported on in final form in due course.

The original Annual Report format of papers geographically ordered from north to south has been preserved for the sake of uniformity. The editors regret the delay in producing this volume; in the past the Annual Report has been made available within a year or so of the field season through the excellent cooperation of contributors. Pressure on the editors of other commitments throughout 1987 and 1988, especially the planning and curating of exhibits for the newly-opened Mary March Museum in Grand Falls prevented the maintenance of this schedule, through no fault of the contributors. The appointment of Linda Jefferson to the separated position of Resource Archaeologist within the Historic Resources Division in early 1988, and the transfer of responsibility for compiling and editing this report series to Linda should permit more timely production of the report on 1987, 1988 and subsequent seasons' fieldwork.

This review has revealed a trend also noted in a recent review of the 1985 Annual Report (McGhee 1987). Of the 16 problem oriented research projects, most had a largely historic period focus. While information was collected by several researchers on nearly all of the prehistoric groups to have inhabited the province during the past 5000 years, most sites reported date from the past two millennia. However, most of the research in 1986 was directed at investigating early European and historic native occupations of the province from the 16th to 20th centuries. This is in sharp contrast to the first version of this series, published in 1981, in which only two of the nine papers dealt with the archaeology of the past five centuries. It can be hoped that field investigators, government agencies, and local development associations will continue this focus and provide educators with a broader and more accurate culture history for use in classrooms and text books, and the public with important ties to their immediate and more distant past.

HISTORIC RESOURCES DIVISION ACTIVITIES

The Historic Resources Division continued its other programmes throughout 1986, despite the interruptions of two work stoppages during contract disputes. A total of 46 development registrations was received from the Department of Environment for review under the Environmental Assessment Act, an increase of twelve from the previous year. Nineteen of these were judged to have potential for impact on archaeological sites. In nine cases, investigations were carried out by the Division; for the remaining ten the proponents were advised to conduct some level of historic resources assessment. Sixty-one quarry permit applications and five Crown land applications were examined in order to ensure that these operations would not disturb known archaeological sites. Seventeen were field checked. The Division reviewed 90 projects brought before the Interdepartmental Land Use Committee, and thirteen Municipal Plans and Plan Reviews. The Regional Advisor Programme, coordinated by the Newfoundland and Labrador Association of Amateur Archaeologists (NLA^3), continued to expand its site watch and other activities. For the last two months of the year, Gerald Penney was hired to replace Callum Thomson as Curator of

Archaeology and Ethnology during the latter's leave to complete doctoral coursework.

A new exhibit featuring Museum research into Palaeo-Eskimo cultures in northern Labrador was installed on the Native Peoples' floor of the Duckworth Street Museum, St. John's. Each of the exhibits on this floor, installed in 1977, will be upgraded or replaced to reflect more recent research results. We also began work on the design, storyline, graphics, text panels and artifact selection for the Native Peoples' section of the Mary March Regional Museum, Grand Falls, scheduled to open in August, 1988.

Many hours of volunteer assistance with cataloguing and collection management were once again contributed to the Museum by Julia Mathieson of NLA[3]. In addition, Joy Skanes worked under contract to enter recent site records to the Canadian Heritage Information Network –– the site inventory in the province totalled 1700 by late 1986 -- and Scott Biggin was hired to catalogue artifacts from Museum field projects in 1986.

GRANTS

The Historic Resources Division was pleased to be able to provide $20,450 in grants to researchers in 1986 to help defray fieldwork costs within the province.

William W. Fitzhugh	Smithsonian Institution	$2000.00
Stephen Loring	University of Massachusetts	$1150.00
Kevin McAleese	Memorial University of Newfoundland (M.U.N.)	$4600.00
Moira McCaffrey	McGill University	$2200.00
Newfoundland Marine Archaeology Society		$4000.00
Gerald Penney	St. John's	$1500.00
Peter Pope	M.U.N.	$2000.00
James A. Tuck	M.U.N.	$3000.00

Among other funds contributed to the projects reported upon below, $73,000 was provided on a cost shared basis by the federal and provincial governments to cover the cost of work at the Red Bay Basque whaling site in 1986. This brings total spending on archaeological projects in the province to over $250,000 for the year.

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THE NEWFOUNDLAND AND LABRADOR ASSOCIATION OF AMATEUR ARCHAEOLOGISTS INC.: REPORT OF THE YEAR'S ACTIVITIES — 1986

Mark Allston
President

Nineteen eighty-six saw the association receive its legal incorporation. Our thanks to lawyer Bill Crosbie and the guiding hand of Frances Puglisevich for adding "Inc." to our letterhead. Besides charitable status, which is still pending, this is really the last step towards fulfilling our aims. Now, we must build on our accomplishments and the directions we have to set to become a stronger association.

This year, the site watch programme was activated to help with protection of sites in key areas of the province. Advisors have been recruited from Cape Ray, on the southwest coast, Fleur de Lys, on the Baie Verte Peninsula, Millertown, on Red Indian Lake, and Fermeuse on the east coast of the Avalon Peninsula. Other recommendations are now being considered from other regions, including Labrador. A set of guidelines has been drafted and approved by the NLA^3 executive to define the roles and responsibilities of the Historic Resources Division, the NLA^3, and Regional Advisors. Anyone interested in becoming a Regional Advisor should contact Steve Colman-Sadd at 754-1127 or 576-2769, or the Historic Resources Division at 576-2460.

The films we have shown in cooperation with the Newfoundland Museum — a BBC TV series on the Vikings and a Parks Canada production on L'Anse aux Meadows — have again proved their popularity with local audiences. It is unfortunate that the films have become so expensive to rent. I shall endeavour to help the new executive get archaeological and anthropological films from new sources. Perhaps we should broaden our topics to include more anthropological and archaeological subject matter.

General meetings held in 1986 included an illustrated talk in January by Callum Thomson and Mark Allston on their fieldwork in Saglek Bay in the summer of 1985, followed by a presentation of summary reports for the past year and the re-election of the existing executive for a second year. In February, Callum presented an overview of the newly-proclaimed Act Respecting the Preservation of the Historic Resources of the Province (The Historic Resources Act) and fielded questions from the audience on topics relating to the Act. Ralph Pastore gave a fascinating lecture on his work at the Boyd's Cove site in March and, the following month, Priscilla Renouf presented data on her recent work at Port au Choix.

Three issues of the Newsletter were distributed to members during the year, containing items on archaeological investigations within the province and abroad, progress with the site watch programme, news of sister organizations, and members' activities. The association has continued to offer a variety of volunteer services to help further the cause of archaeology in the province. I salute those members involved for their devotion. Our growth this past year has not been as great as it should have been but we must be patient with our development so that we can protect the resource that we have taken upon ourselves to help protect. My thanks to Julia Mathieson, Bruce Ryan and Steve Colman-Sadd for contributing to this report.

NLA^3's new address is: P.O. Box 13912, Stn. A, St. John's, NF, A1B 4G7

RESULTS OF SIX HISTORIC RESOURCES OVERVIEW ASSESSMENTS IN NEWFOUNDLAND AND LABRADOR — 1986

Gerald Penney
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St. John's

INTRODUCTION

Six historic resources assessments were carried out in Newfoundland and Labrador in 1986 for a variety of clients: four on the Island portion of the province and two in Labrador. These were to establish whether commercial or other developments would adversely impact historic or prehistoric sites. Basic information about the assessments including clients and the dates of fieldwork are summarized in Table 1.

Table 1. Projects, clients and field dates.

Project	Client	Dates
Hope Brook Mine	BP Resources Canada	25/06 — 02/06
Burgeo Road to Hope Brook transmission line	Newfoundland Hydro	06/06 — 11/06
Cartwright, Labrador long range radar site	New North Consultants	18/06 — 24/06
Saglek, Labrador long range radar site	New North Consultants	25/06 — 28/06
White Bear Bay coastal survey	NF Department of Forest Resources and Lands	28/08 — 01/09
Bottom Brook to Burgeo transmission line	Newfoundland Hydro	18/09 — 20/09

All four Island investigations took place in the southwestern corner of the province and have added to the information concerning Micmac and Beothuk cultures. In all cases fieldwork was supplemented by documentary research and, in some cases, by personal interviews and information-gathering from local residents and other knowledgeable people.

PROJECT DESCRIPTIONS

Hope Brook Mine

As part of its environmental responsibilities in developing a gold mine on the Cinq Cerf River, BP Resources Canada contracted a study of the area to determine if any historic resources would be affected (Penney 1986a). This included a ground survey of the area planned for a road from the mine to the waterside, a foot survey of the area planned for a new dock, and the shorelines around Boat Hole Brook. The area of the mine and approaches was also overflown by helicopter.

A research grant from the Historic Resources Division made possible a coastal survey of Cinq Cerf Bay and parts of Couteau Bay which fell outside BP's study area. This extension was aimed at setting possible prehistoric and historic activity within the BP study area into a larger picture of events on this coast. While considerable amounts of European activity was observed at Duck Island, on the east coast of Couteau Bay, and in the abandoned community of Cinq Cerf, little else appears to have taken place. The shallowness of Cinq Cerf Bay and its open exposure may have made it unpopular with prehistoric peoples.

Two prehistoric Indian sites were located in Couteau Bay (Figure 1). The first, a small site (CkBm-2), would have been destroyed by the proposed dock facility as originally planned; however, the dock was subsequently scaled down to accommodate a more specialized vessel. Mitigative measures consisting of complete excavation and documentation of the site were recommended. The site assemblage from testing was small, consisting of a few chert flakes. The location may have been a lookout or auxiliary usage site for a larger site.

The second site at Boat Hole Brook is considered to be of Recent Indian origin. This site (CkBm-1), located near the mouth of Boat Hole Brook, may be affected by the dock facility and road construction; further investigation and site protection were recommended to the client (Penney 1986b). Further testing revealed 35 stone artifacts (Plate 1) indicating that the Boat Hole Brook site was occupied by three cultural groups: Beaches complex, Little Passage complex and Beothuk Indians. Charcoal, one piece of European pottery, and evidence of iron staining and bone remains indicate site usage during the historic period. A radiocarbon age determination of 450±100 B.P. (Beta-17854) indicates a late prehistoric occupation.

Burgeo Road to Hope Brook transmission line

As part of the Hope Brook mining development, Newfoundland and Labrador Hydro will build a 138 kv transmission line from Wooden Tilt Brook on the Burgeo Road to the mine site. The 34 km line crosses three major waterways: Grandy's Brook, Northwest Arm Brook and Couteau Brook. Survey methodology included a foot survey of the river crossings (Figure 2), a helicopter overflight of the proposed line route, and ground inspections of the proposed substation areas (Penney 1986c).

While no prehistoric sites were discovered along the line's route, river crossings showed considerable usage by hunters, prospectors and others. Summer cabins were found near Grandy's Brook and Couteau Brook. The New York, Newfoundland and London Telegraph Company (ca. 1855-1935) line in many areas parallels the transmission line route. The line was a vital 19th century link to carry commercial and news data from the old world to the new. The route was surveyed in 1851 and the telegraph line installed shortly thereafter. The river crossings often became line shack sites and depots marking line crew territories. A line shack reported at Couteau Brook was not located during the survey. During the transmission line survey old telegraph line pole foundations were discovered. Recommendations were made to the client that further investigations be undertaken of the telegraph line facilities at Couteau Brook.

Another historic site possibility at the brook crossings was reported to the client. In 19th century Newfoundland transhumance was the economic rule. Fishermen and seafarers moved into the heads of the bays and fjords to weather the winters and to cut wood for boat and house building as well as to hunt and trap. Many winterhouse sites are known to exist but no effort has been made to date to discover and investigate them. Many winterhouse sites have been taken over in modern times as summer cabins.

Cartwright long range radar site

The National Defence Department of the Government of Canada is upgrading the early warning radar system in Canada's north. Three of these radar sites in the eastern Arctic are at Cartwright and Saglek, Labrador, and at Breevort Island, off the southeast coast of Baffin Island. An historic resources assessment of the Cartwright and Saglek sites was required by the Newfoundland government while the Government of the Northwest Territories required an assessment of the Breevort site.

Cartwright, on the east side of Sandwich Bay, is located in an area of rugged hills and cliffs near the open ocean. Further inland the bays and fjords become sheltered and wooded. Sandwich Bay is rich with avian, marine and terrestrial wildlife and would have been an ideal place for hunter/gatherer peoples. Six cultural groups have used the coastlines in and around Sandwich Bay over the past 7,000 years: Maritime Archaic and Shield Archaic Indian, early Palaeo-Eskimo, Dorset Eskimo, Point Revenge Indian, and Neo-Eskimo. European settlement in Sandwich Bay similarly subsisted on its rich flora and fauna.

Aside from a foot and helicopter survey of the actual radar site and associated roads and building areas (Figure 3), where no historic resources were found, a survey of the community of Cartwright itself was conducted. Personal interviews with residents and documentary research aided in the location of two Maritime Archaic tradition sites and the remains of George Cartwright's house on Great Island (Figure 4). Within the community, a Maritime Archaic site appears to have been destroyed by road construction. A survey at Paradise River for a second of Cartwright's houses was not successful due to recent activity in the area. Recommendations were made regarding the future discovery of any historic resources and are now part of the project's environmental protection plan (Penney 1986e).

Saglek long range radar site

The Saglek installation is being rebuilt on the site of an earlier United States DEW Line radar facility. A history of occupation of Saglek Bay includes most of the cultural groups mentioned above in the Cartwright section, with the exception of the Shield Archaic. Six previously-recorded sites were known to exist on the raised beach area below the radar site. These sites, of Maritime Archaic, Palaeo-Eskimo, Neo-Eskimo and possible Point Revenge origin had not received any visible disturbance during the American and subsequent Canadian use of the Saglek base. Their location, on the other side of a deep stream which cuts the terrace in two, will likely continue to protect them from modern interference (Penney 1986f).

Saglek Bay has been the subject of intense investigations in the past by Canadian- and American-based archaeologists. About 200 sites have been discovered in the bay to date, ranging across 5-6000 years. At the actual area likely to be disturbed by construction activities, on the western side of the brook, sites would have been destroyed long ago. No sites were found in the actual radar site site area although many sites are present within a couple of kilometres of the radar site. Recommendations were made to declare the closest sites to the radar station off limits to any activity by construction or operating personnel and form part of the project EPP.

White Bear Bay coastal survey

White Bear Bay (Figure 5) is a forested fjord on the otherwise bleak, rocky south coast of the Island. It has been used intensively by residents of Ramea, Burgeo and other communities as a hunting, fishing, logging and recreational area for 200 years or so and is now being put under the control of the Department of Forest Resources and Lands as a remote cottage area. The possibility of such cottage areas impacting historic resources was the rationale behind the coastal survey. One site of Palaeo-Eskimo origin was already known, and Micmac use of the head of the bay is documented.

The shores were surveyed by boat; test pits were dug at the sites proposed for cabin development. Documentary research shows Micmac use of White Bear Bay during the past 150 years. At the head of the bay was an important telegraph station for the New York, Newfoundland and London Telegraph Company. European sites were investigated on Deer Island, at the mouth of the bay.

While cabin development in White Bear Bay will not involve bulldozing and earthmoving, the increased recreational use of the area may create adverse impacts through site vandalism. A system of reporting site discovery and an educational programme for cabin owners were recommended as mitigative measures.

Only one known site (Penney 1985) may be impacted adversely by further cabin development. Other areas along the shores of the bay are either without sites or else cabin development is not practicable. The head of White Bear Bay, the most likely area for cabin development and the area with the greatest potential for prehistoric and historic sites, is of some concern and more work was recommended to adequately investigate and document such potential resources.

The mouth of the bay, especially Deer and Bear Islands, shows extensive European usage and continuing summer cabin and fishing station use. Any archaeological sites on these islands would long ago have been destroyed. Human occupation of these islands is limited in area and modern use has obliterated evidence of use even 100 years or so ago.

Bottom Brook to Burgeo transmission line

Newfoundland and Labrador Hydro plans to extend a 138 kv transmission line from Bottom Brook, near Bay St. Goerge, to Burgeo. Fourteen rivers and brooks will be crossed by the line including waterways which are known to have been used by Beothuk and Micmac. No historic resources were located along the route of the line or at the river crossings, but a strong recommendation was made to exercise care during construction of the line in order that any sites discovered may be investigated and documented (Penney 1986d). In this regard, two seminars were given to Hydro field personnel.

The three major physiographic areas of the transmission line route are the Southwest Brook valley, the highlands from Lloyd's River to Burnt Pond, and the barrens between Burnt Pond and the coast (Figure 6). The Southwest Brook valley was a route for Micmac migration and for exploitation of the interior, connecting Bay St. George and the interior forests and rivers.

Documentary research shows areas at the head of Southwest Brook as being "owned" by Micmac families who either lived in the interior or had settlement bases at Bay St. George. Prior to Micmac expansion the waterways through the highlands around Lloyd's River, Victoria Lake and King George IV Lake were used by the Beothuk on an annual migration from the interior to the Notre Dame Bay coast. The south coast barrens were used by both Indians and Palaeo-Eskimos as hunting grounds for caribou, birds and small fur-bearing animals.

SUMMARY

The four investigations conducted in the southwest corner of the Island have added to the knowledge of the history and prehistory of the area. The additional sites discovered in White Bear Bay, Couteau Bay and at Boat Hole Brook are interesting in as much as they confirm use of the coastal areas by prehistoric people. The documentary research into Micmac and Beothuk use of the interior and the details of the telegraph line which once extended along the south coast shed light on a little known aspect of Newfoundland Island history.

The need for more detailed work on the European and Micmac occupation of the south coast has been stressed; further work is planned at King George IV Lake in 1987. The mining operation at Hope Brook, the transmission lines, and the opening up of White Bear Bay for authorized cabin development are all indicative of the increased pressure to which this area will be subjected in the next few years. The need is great for education programmes and systems to report and mitigate against destruction of historic resources in the area. The two Labrador studies underline the necessity for careful assessment of the potential of Labrador's historic resources.

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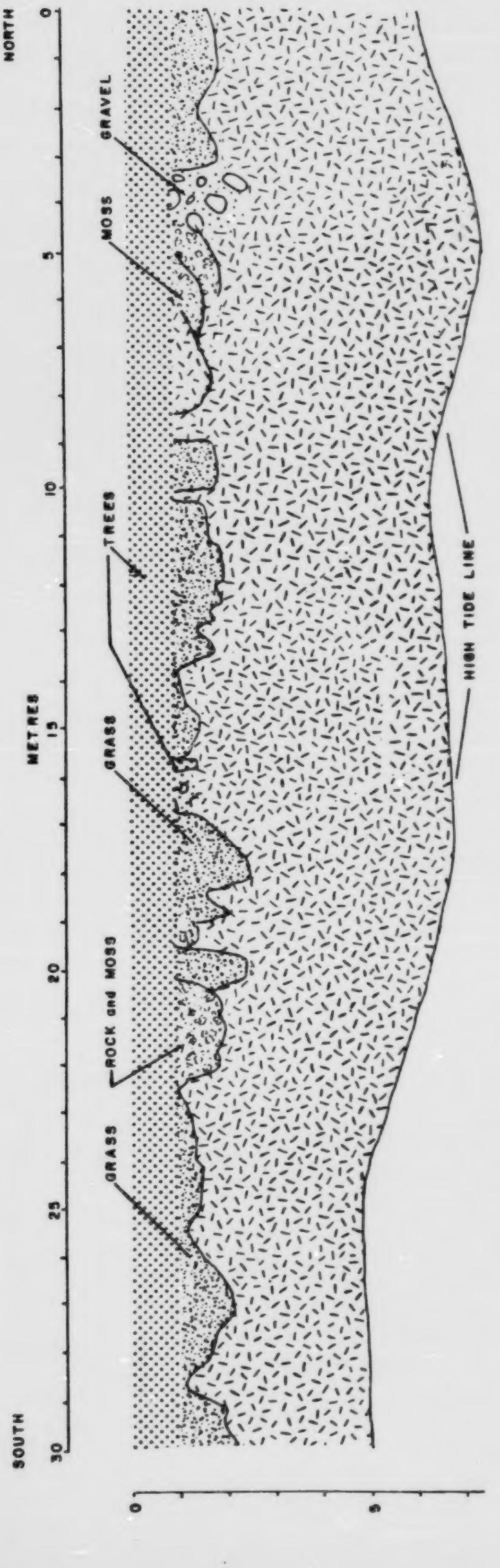
NORTH
SOUTH
METRES
0
5
10
15
20
25
30
GRAVEL
MOSS
TREES
GRASS
GRASS
ROCK and MOSS
GRASS
HIGH TIDE LINE
0
5

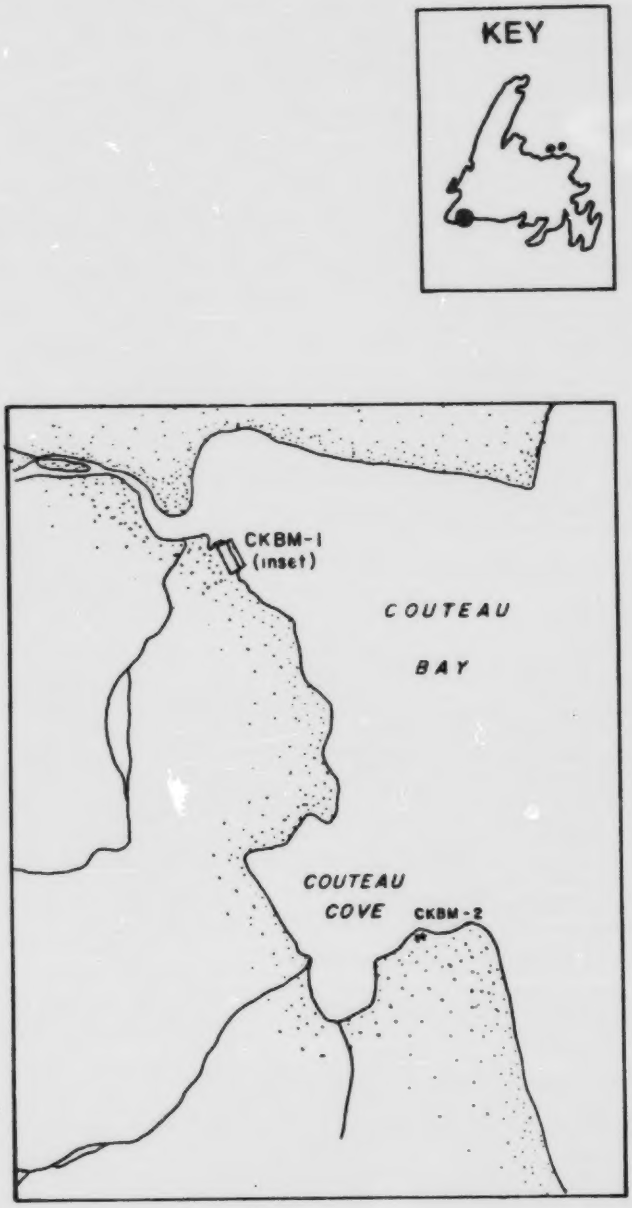
KEY
CKBM-1
(inset)
COUTEAU
BAY
COUTEAU
COVE
CKBM-2

Figure 1 : Boat Hole Brook site

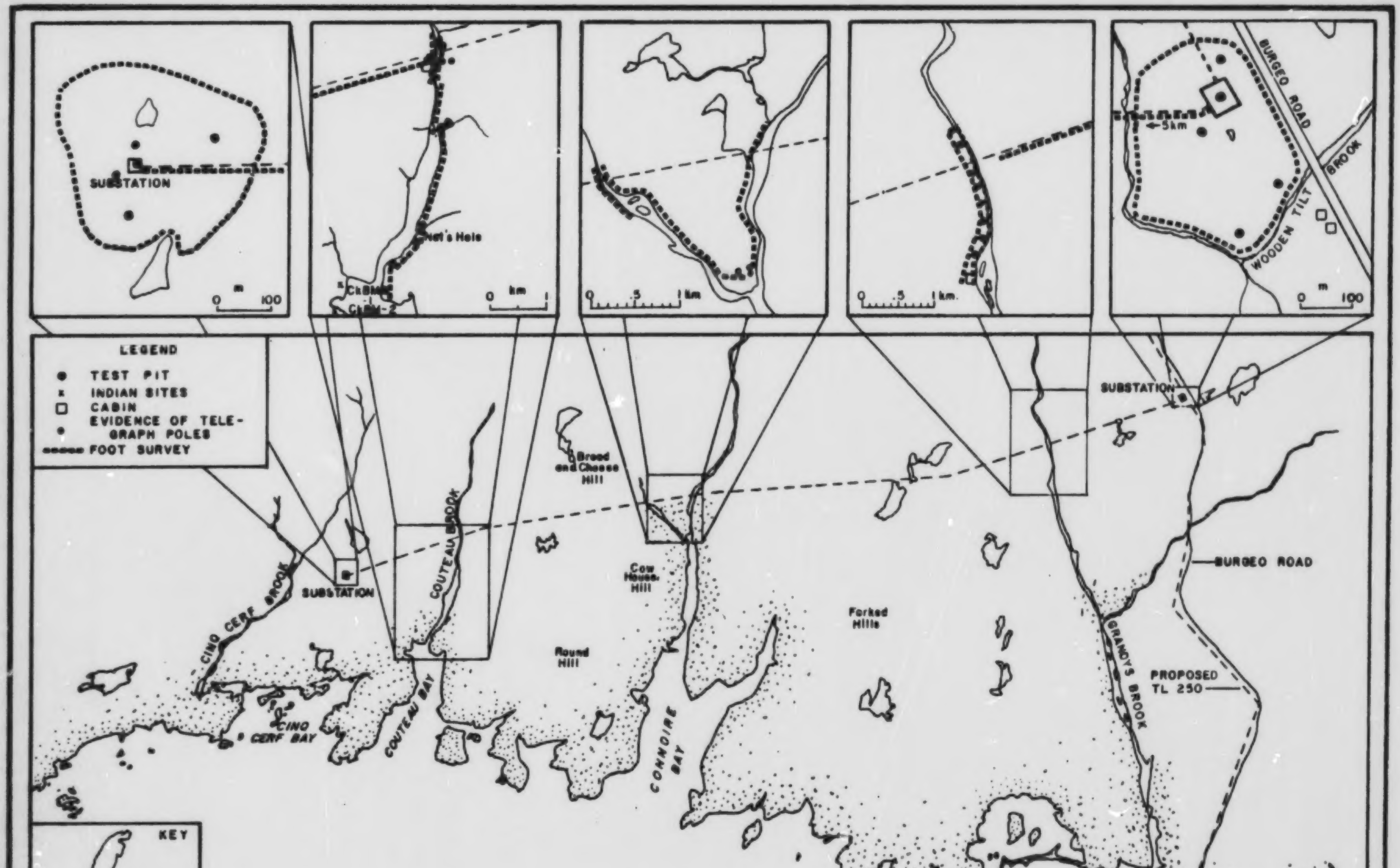
SUBSTATION
0 m 100
CkBM-1
CkBM-2
Nel's Hole
0 km 1
0 .5 1 km
0 .5 1 km.
←5km
BURGEO ROAD
WOODEN TILT BROOK
0 m 100
LEGEND
TEST PIT
INDIAN SITES
CABIN
EVIDENCE OF TELEGRAPH POLES
FOOT SURVEY
Bread and Cheese Hill
SUBSTATION
CINO CERF BROOK
SUBSTATION
COUTEAU BROOK
Cow House Hill
Round Hill
Forked Hills
GRANDYS BROOK
BURGEO ROAD
PROPOSED TL 250
CINO CERF BAY
COUTEAU BAY
CONNOIRE BAY
BARASWAY BAY
BURGEO
KEY
KILOMETRES
0 1 2 4 6 8 10

Figure 2: Hope Brook Mine transmission line

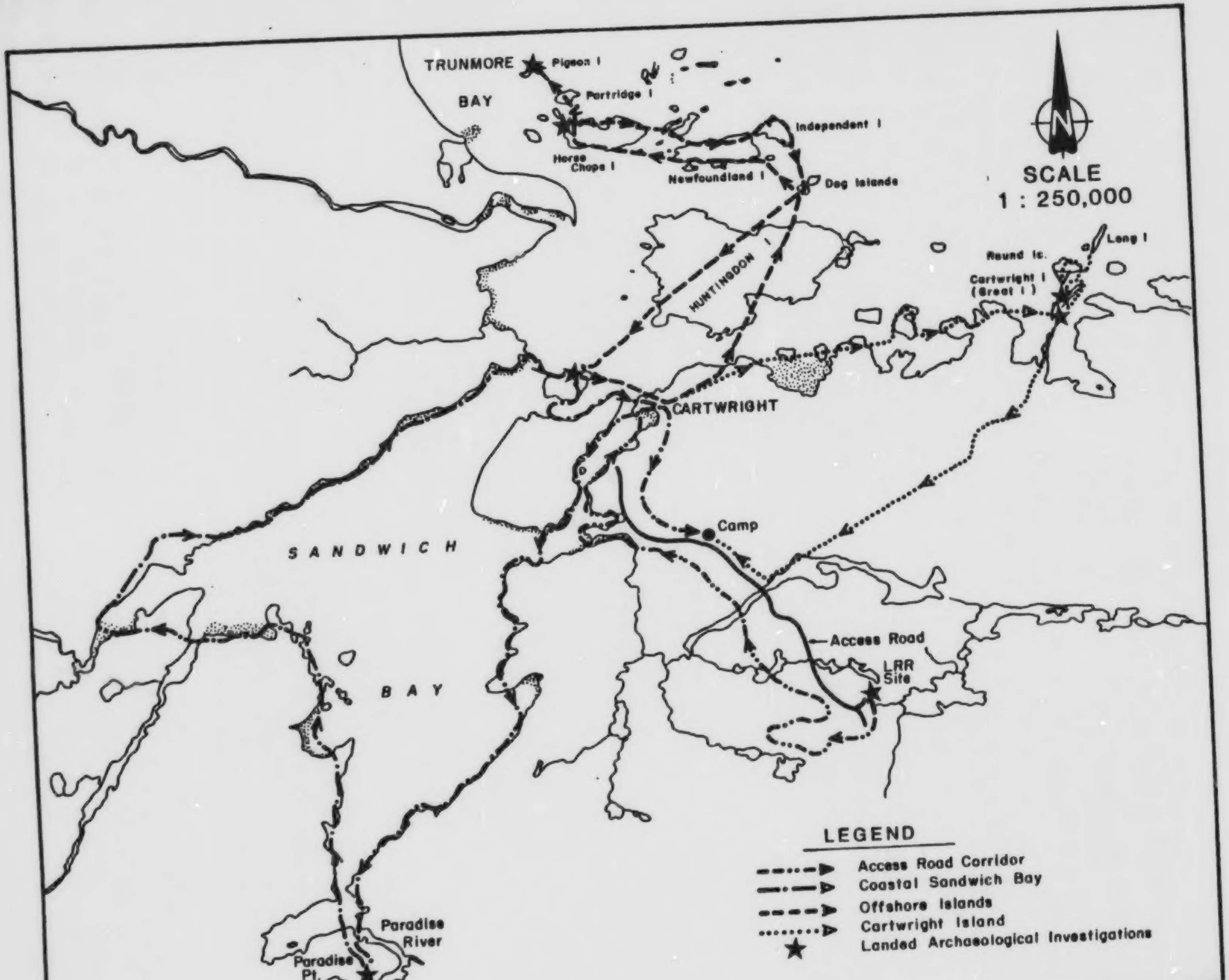
SCALE
1 : 250,000
N
TRUNMORE
BAY
Pigeon I
Partridge I
Horse Chops I
Newfoundland I
Independent I
Dog Islands
HUNTINGDON I
CARTWRIGHT
Round Is.
Long I
Cartwright I (Great I)
Camp
SANDWICH
BAY
Access Road
LRR Site
Paradise River
Paradise Pt.
LEGEND
Access Road Corridor
Coastal Sandwich Bay
Offshore Islands
Cartwright Island
Landed Archaeological Investigations

Figure 3 : Cartwright survey area

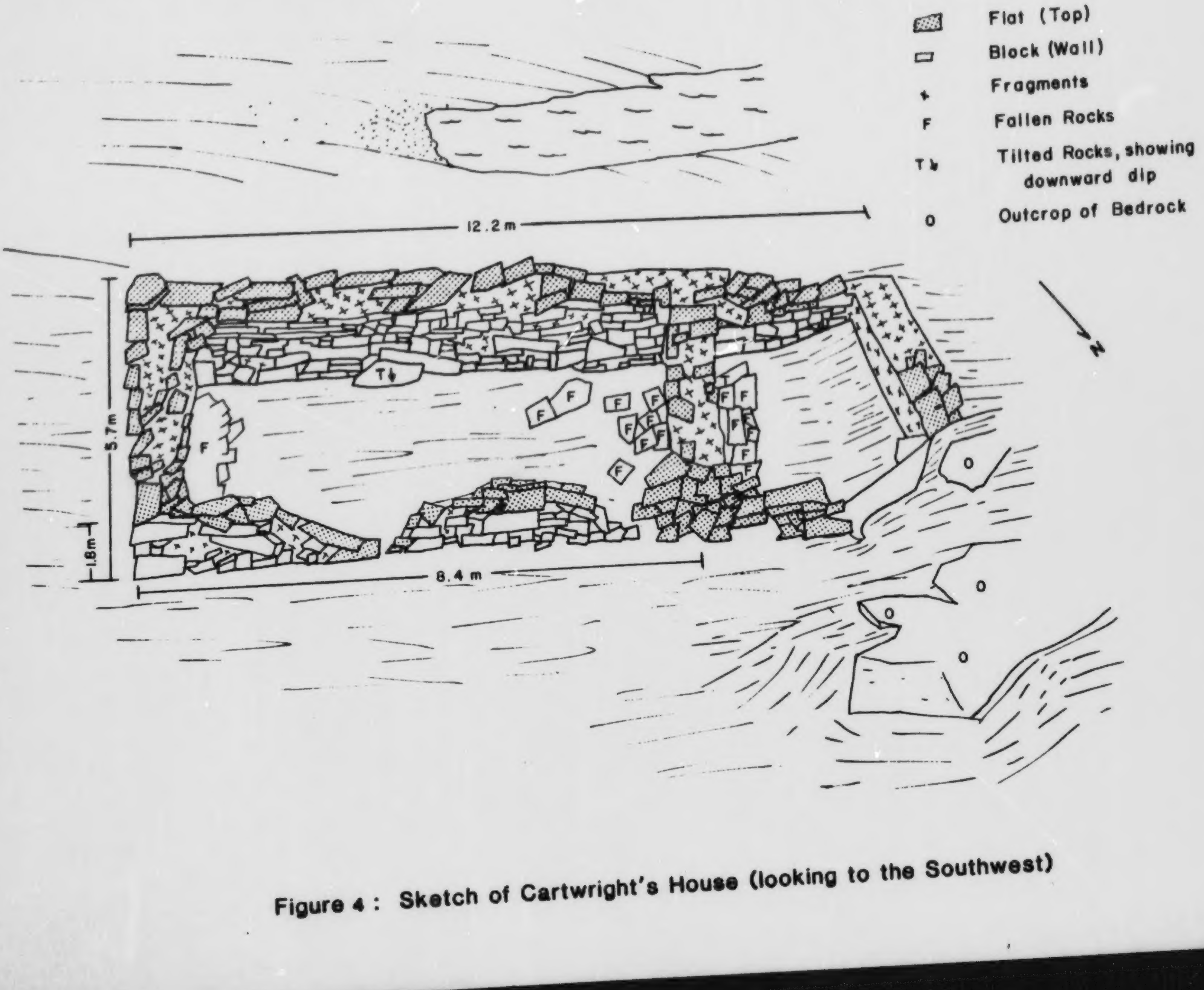
Flat (Top)
Block (Wall)
+ Fragments
F Fallen Rocks
T↓ Tilted Rocks, showing downward dip
O Outcrop of Bedrock
N
12.2 m
5.7m
1.8m
8.4 m
F
T↓
O

Figure 4 : Sketch of Cartwright's House (looking to the Southwest)

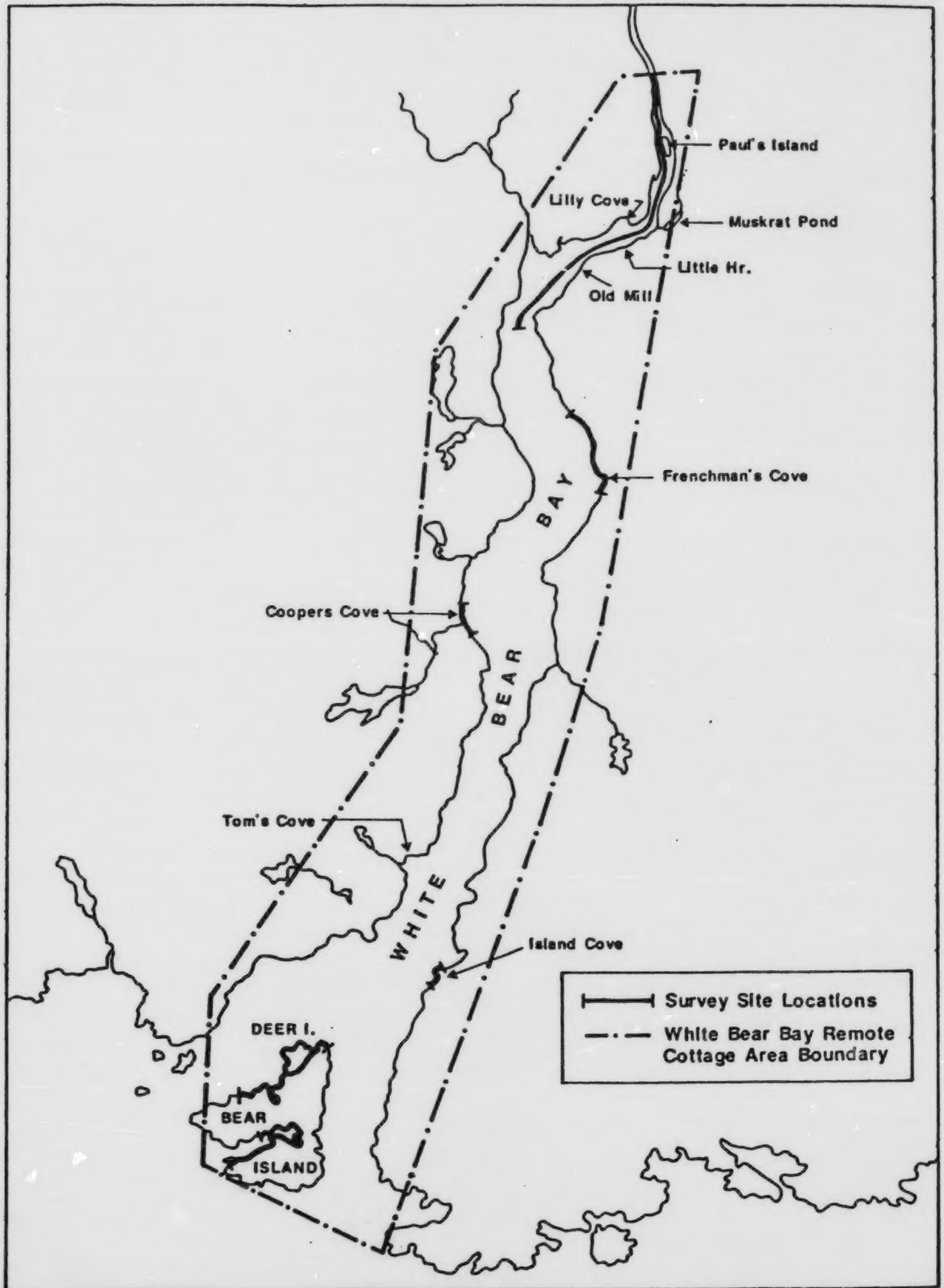
Paul's Island
Lilly Cove
Muskrat Pond
Little Hr.
Old Mill
Frenchman's Cove
BAY
Coopers Cove
BEAR
Tom's Cove
WHITE
Island Cove
Survey Site Locations
White Bear Bay Remote Cottage Area Boundary
DEER I.
BEAR
ISLAND

Figure 5 : White Bear Bay

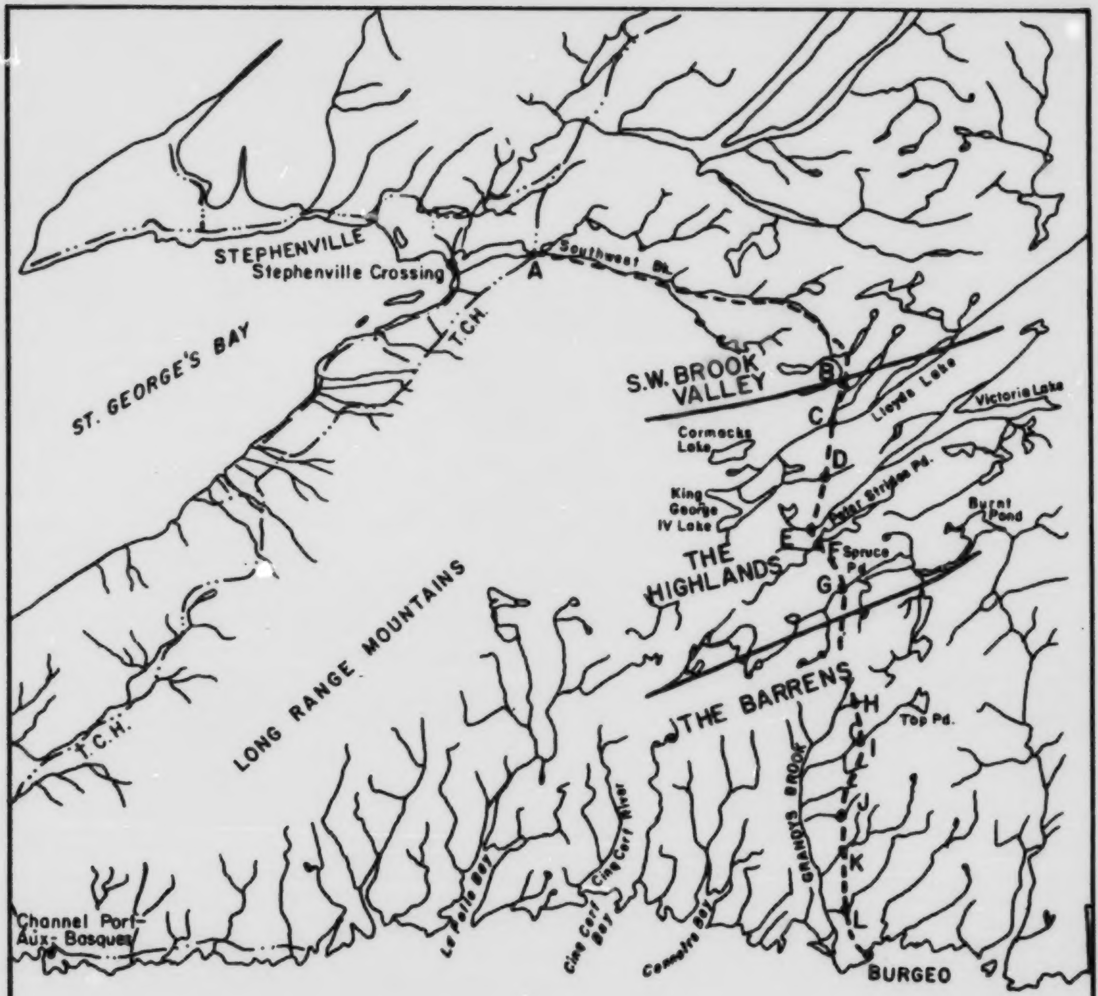
STEPHENVILLE
Stephenville Crossing
Southwest Bk.
A
T.C.H.
ST. GEORGE'S BAY
S.W. BROOK VALLEY
B
C
Lloyds Lake
Victoria Lake
Cormacks Lake
D
King George IV Lake
Peter Strides Pd.
Burnt Pond
E
F
Spruce Pd.
THE HIGHLANDS
G
LONG RANGE MOUNTAINS
THE BARRENS
H
Top Pd.
I
J
K
L
GRANDYS BROOK
T.C.H.
La Poile Bay
Cinq Cerf River
Cinq Cerf Bay
Connoire Bay
Channel Port-Aux-Basques
BURGEO
RAMEA IS.

Figure 6: Location of river crossings - Burgeo transmission line

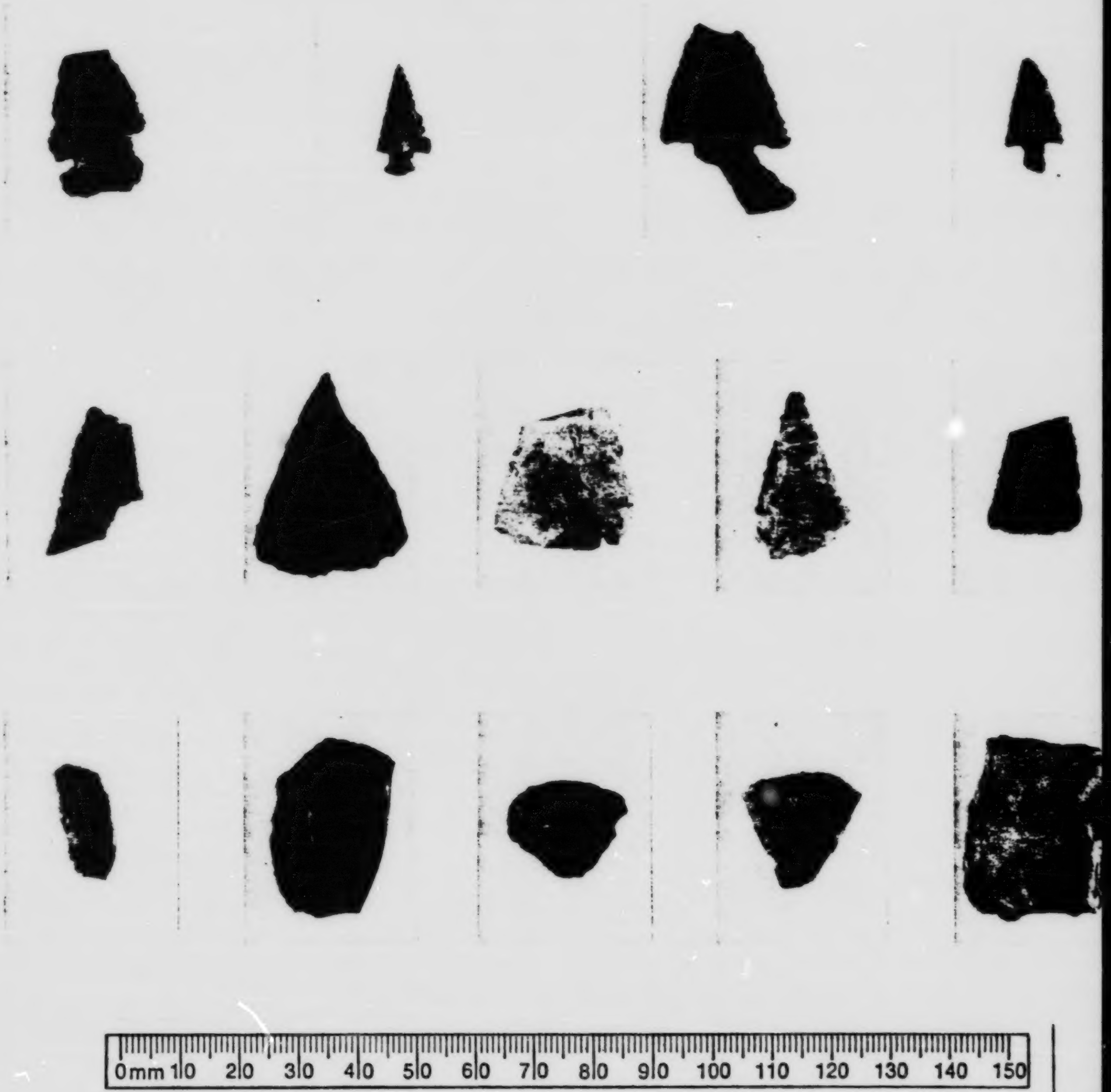
0mm 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

Plate 1: Lithics at Boat Hole Brook

THE CARIBOU TRAIL CONTINUES: A SURVEY OF WHITE POINT, BETWEEN SAGLEK AND HEBRON

J. Callum Thomson
Newfoundland Museum

INTRODUCTION

A report on a 1985 survey of the inner arms of Saglek Fjord (Figure 1), in which little evidence was found of prehistoric utilization of resources in this area compared with the large numbers of sites on the outer coast and islands of Saglek Bay (Thomson 1986), concluded that a focus of future research in the Saglek Bay/Fjord area would be north on the coastal margin towards Nachvak and south towards Hebron. The purpose of the expansion would be to test the hypothesis that in prehistoric times hunting groups in Saglek may have felt more attachment to neighbouring groups, outer coastal resources, and fast travel routes than to the neat geographic unit of a bay/fjord complex such as Saglek which penetrates far inland and crosses several ecological zones, and that the abundant resources of the fjord arms, including char and caribou, may only have been attractive to the more mobile and numerous Neo-Eskimos and Inuit.

In historic times, each of Labrador's major bay/fjord complexes seems to have been occupied by a local group or band, the members of which referred to themselves by a common local name (Taylor 1974: 78-79). But there was considerable fluidity among the members, with continuous in- and ex-migration from and to other territories, and considerable geographic division among subgroups in each local band. If territoriality was also a feature of prehistoric groups, if paucity of prehistoric sites in the inner reaches of fjords is common on the north coast and not just a result of investigators' biases, and if, therefore, sites predominate on the linear outer coast and islands it may be difficult to assign particular sites other than arbitrarily to local bay/fjord complexes.

A brief opportunity to examine this problem in the field was presented in 1986. In late June, Gerald Penney (1986, this volume) was contracted to assess potential impact on the area's historic resources of the North Warning

System Long Range Radar Installation at Cape Uivak, Saglek. As I had previously surveyed part of the study area (Thomson 1981, 1984), I offered to accompany and assist Penney.

When a survey of the known sites on the former DEW Line station and adjacent areas with potential for impact from new installations had been completed we had a day to spare before our departure south so set out to investigate the long headland, coves and flat beach terraces around White Point. This area had long intrigued me as we flew over it each year en route to Saglek; as it lay adjacent to the southern boundary of Penney's study area, any sites present were now somewhat at risk from casual or deliberate vandalism (Note: The Historic Resources Act [Government of Newfoundland and Labrador 1985] prohibits unauthorized artifact collecting or any other form of site disturbance). White Point protrudes 1 km into the Labrador Sea to act as an anchor for the land-fast ice edge on the north side of the mouth of Hebron Fjord (Kaplan 1983: Figure 14a), and shelters coves to the north and south from winds, seas and ice. The point is the first or last safe landfall south of 500 m high Cape Uivak, providing a terminus for portages over the low pass to and from Saglek Bay, avoiding the Cape. A large pond just west of the headland and several small ponds on the valley floor offer good habitat for wildfowl. White Point and the flat hinterland therefore offer many attractions for hunters and travellers.

NARRATIVE

We trekked through 1 m deep snowdrifts for 4 km southeast through the pass from the end of the station runway to a large, freshwater pond north of White Point (Figure 1) where a previous survey terminated in 1980 (Thomson 1981). Much of the north side of the pond was still buried under the snow which had fallen the previous week, but we were able to survey the coast and immediate near-interior 3 km south from the pond to the southward-facing shore west of White Point, finding a variety of site types spanning several thousand years.

We ran out of time to walk out onto the point itself, or west along the shore towards Tigigakyuk Inlet but assume that other sites are situated there as well as beneath the snow on the north side of the pond. During our travels we saw dozens of Canada geese, some with young, several caribou, many deep caribou trails, and flights of eider ducks out to sea. We assured ourselves that most or all of the sites we recorded are sufficiently invisible or unattractive to the untrained eyes of any construction workers, radar base employees or visitors who might venture that far from the base, then returned to Saglek and left by plane the next day.

SURVEY RESULTS

Eighteen new sites were found on a 3 km long strip of coast and immediate hinterland north of White Point, lending some support to Thomson's (1986) hypothesis about the importance of the outer coast in the Saglek area, at least during the Maritime Archaic period. Sites of Maritime Archaic, Dorset and Neo-Eskimo affiliation were recorded; due to time limitations, investigations were limited to very rough field sketches, photographs of features and sufficient surface collection of artifacts to identify cultural affiliation. No excavations were attempted.

Maritime Archaic

Several sites were found at the eastern corner of the large pond north of White Point. The pond is fairly shallow, surrounded by narrow, gently sloping or flat terraces sparsely vegetated with lichens, dwarf willow and ground-hugging berry plants. Between the pond and the sea, at the southeast side, is a 400 m wide rocky barrier topped by a barren, boulder-covered former beach, now 30-40 m above sea level. The first site encountered as we followed a prominent caribou trail along the north side of the pond was a 7 x 4 m, two segment Maritime Archaic longhouse (IcCp-19) a few metres from the pond on a flat gravelly terrace covered with a thin soil and light vegetation. Several flakes, a Rattlers Bight Ramah chert stemmed point base and a tan chert core (Figure 2) were found inside the structure. Flakes of Ramah, banded and black cherts were noted in an amorphous boulder structure 10 m north of the longhouse.

A second probable Maritime Archaic site (IcCp-22) is composed of a 3 x 3 m boulder house pit similar to two found on a high boulder beach on the seaward side of Big Island (Thomson 1983) and an associated 1 x 1 m cache pit on the southern edge of the boulder terrace. Both pits are about 1 m deep and lined with carefully placed rocks; no other internal features or cultural material were noted. IcCp-23 may also be a Maritime Archaic site; it is a large, isolated cache or small house pit on a small spit at the edge of the pond, 200 m from IcCp-22. About 250 m southwest of IcCp-23, another 3 x 3 x 1 m boulder house pit and associated 1 x 1 x 1 m cache pit were found at the edge of the beach ridge, overlooking the sea. The walls of the house have collapsed into its interior, but this is probably also a Maritime Archaic site (IcCp-25).

Another small longhouse and two associated cache pits were found 0.5 km south of the pond on a level terrace about 40 m a.s.l., 300 m from the present shore line (IcCp-29). The main structure is divided into two sections or rooms surrounded by raised gravel and boulder walls. The interior is cleared of larger rocks, leaving a flat, relatively smooth floor.

On the same boulder terrace, one hundred metres south of IcCp-29, a sixth Maritime Archaic site (IcCp-30) was recorded, composed of a two segment longhouse, three tent rings and four cache pits. All of these features were scooped out of the boulder matrix. As with most of the previous sites, no lithic material was noted on the surface.

A large site (IcCp-32) 1.5 km south of the pond, at 10 m a.s.l., appears to have been re-used by several cultural groups. Among the 15 or more structures are a possible Maritime Archaic boulder house pit, 3 m in diameter, and two caches.

Near the summit of a pass between the south coast of the Cape Uivak and White Point to the east, we located a well-vegetated Maritime Archaic longhouse, three associated caches and four tent rings (IcCp-33). The longhouse (Figure 3) contained many fragments of Saglek quartzite and measured 15 x 4 m, which is slightly longer than most others found in the White Point area. It is divided into four rooms separated by raised boulder walls. Traces of Ramah chert, including one biface medial section (Figure 2), were found elsewhere on the terrace. This site holds great promise for future investigation.

On the south side of the 30 m high pass, we came across another relatively large Maritime Archaic site (IcCp-34) situated on three consecutive beach terraces downslope from an Inuit burial area. Each of the three longhouses is dug slightly into the beach terrace above it, creating a sheltering retaining wall, while the lower side wall is built up with boulders from inside the cleared structure and elsewhere. The lowest structure is divided into four segments and measures 13 x 4 m. Ramah chert retouched flakes and biface fragments (Figure 2), Saglek quartzite and slate were found in and around the longhouse. The other two longhouses measure 12 x 4 m and have the same lithic material associated. A tent ring is located at either end of House 3, the highest structure; no caches were noted.

Although adequate room exists on each of the terraces for all three longhouses, they are instead situated on consecutive terraces. Fitzhugh has previously noted this pattern elsewhere, for example at Aillik 2 where the Maritime Archaic component is spread over at least five terraces and may span as much as 1500 years from ca. 6000-4500 B.P. (Fitzhugh 1984: 31). It seems likely that camps would have been set up on the terrace closest to the active beach in order to minimize hauling of household accoutrements and game and to provide the best view. The three longhouses at IcCp-34 therefore may also span several centuries.

About 600 m north of the coastline west of White Point, between a small pond and a steep hillside, we came across another Maritime Archaic longhouse in possible association with a caribou fence (IcCp-36). The longhouse measures 12 x 5 m and contains abundant Ramah chert flakes and a fire-altered Ramah chert biface fragment (Figure 2). At the north end of the terrace, about 100 m from the longhouse, several caribou trails converge between a rock outcrop and stream which runs into the pond. Several rows of boulders are arranged in a series of short fences across or adjacent to the caribou trails and would have concealed hunters intent upon intercepting caribou (Figure 4). No lithic material was found here in a hasty search; therefore it may be that this is of later construction and use than the Maritime Archaic period, and may date from the Neo-Eskimo period.

Summary. During this half-day survey we recorded 10 sites with Maritime Archaic components, including 8 longhouses with approximately 23 internal divisions, 13 cache pits, 9 tent rings, 4 house pits, 1 unidentified structure and, possibly, 1 caribou trap. The few diagnostic artifacts recovered indicate a period of occupation late in the Maritime Archaic sequence, around 4000

B.P., but the presence of Saglek quartzite, the house pits, and the small size of some of the longhouses suggest an additional occupation, perhaps extending to 5000 B.P. or more.

Identification of the tent rings as Maritime Archaic is tentative; no excavations were attempted and surface lithics in some of these features may have derived from other structures. More careful analysis of Maritime Archaic and "probable Maritime Archaic" house pits, longhouses, caches, burials, fox traps, caribou fences, "roads", tent rings, possible boat rests and other boulder features in the Saglek region and elsewhere in Labrador is an interesting prospect for the future (cf. Auger and Stopp 1986: 232-235, 1987: 65-73, 80).

Palaeo-Eskimo

A scattering of Ramah chert was noted at a Neo-Eskimo site (IcCp-31) close to the shore at the north end of the bay north of White Point. The presence of Ramah chert to the apparent exclusion of other materials and the lack of diagnostic artifacts presents a problem for cultural identification, as late Maritime Archaic, Dorset and Point Revenge all had a particular predilection for Ramah chert as a raw material for chipped stone tools. However, the elevation of this site a few metres above sea level and its proximity to the present shore, and the common occurrence in the Saglek region of mixed Dorset and Neo-Eskimo components in locations similar to this one suggest a brief Dorset occupation.

A second Dorset site (IcCp-32) was found 100 m south of IcCp-31, again associated with a Neo-Eskimo occupation and a possible Maritime Archaic house pit. This site is adjacent to a pond, on either side of a stream emptying into the sea in the shelter of a small island. Middle Dorset artifacts (Figure 2) were found on a paved area at the south end of the site; two tent rings near the stream contained Ramah chert and flakes of schist, a material commonly used by the Dorset for abraders. No evidence was found of Pre-Dorset or Groswater occupation.

Summary. In contrast to the heavy concentration of Maritime Archaic and Neo-Eskimo sites, Palaeo-Eskimos seem not to have favoured this stretch of the outer coast. The outer and central islands and a few key mainland locations in

Saglek Bay are heavily populated with Dorset sites and, less abundantly, with Pre-Dorset and Groswater sites. This distribution will be returned to in the discussion section.

Neo-Eskimo

Eleven or twelve out of the 18 sites contain evidence of Neo-Eskimo or Labrador Inuit occupation (after Kaplan 1983: vi, Inuit is used to refer to the 20th century population). Thirty-one of 49 structures are tent rings, which are mostly circular but occasionally rectangular; they are rarely of more than one course of boulders. One is semi-circular and open at one side (possibly vandalized) with a hearth at the west side of the opening (IcCp-24). Besides habitation structures, other sites or features include a fox trap (IcCp-32), an exterior hearth (IcCp-28), a single pinnacle (IcCp-31) — a long, rectangular slab, visible from a considerable distance, jammed vertically into a rock crevice — and two stone blinds. The blinds (IcCp-26, -27), built out of loosely-fitting boulders with the interstices still filled with sod, are each about 1 m square and 1.5 m high and incorporate a large boulder as one side. These probably represent Inuit exploitation in fall of geese and ducks as they stream down the coast or fly in to the pond. Sites range in size from single structures to those containing as many as 6-8 tent rings (IcCp-21, -32, -35); caches were surprisingly rare (IcCp-31, -35), numbering only five. The caribou fence system (IcCp-36) described in the Maritime Archaic section may also be of Neo-Eskimo origin.

Seven Labrador Inuit graves (IcCp-34) were noted at the top of a pass looking southward over Maidmonts Island and the mouth of Hebron Fjord to the Bishops Mitre and the Kaumajet Mountains. All are simple boulder rectangles enclosing clean gravel on the surface of a sandy terrace; five aligned together are small and appear to be children's burials. Twelve metres to the west of this linear group is a sixth child's grave, and a few metres downhill from the group we found a single adult-sized grave. One of the five is marked at its head with a wooden cross bearing the weathered inscription:

PITAK LUKASIK. ANI
LUKASI.......ASIAK

Summary. None of the Neo-Eskimo sites contains structures such as sod houses or substantial tent rings indicative of winter occupation. Brice-Bennett (1977: 110, 138) records two pre-1960 spring camps and one post-1960 spring camp in this area. We visited only one of these, IcCp-17, consisting of a group of eight tent rings and four caches on a grassy terrace above a sheltered southward facing cove. Scattered seal bones support a spring ice or sina hunting focus. A plastic toy train in one of the tent rings attests to its recent occupation. Most of the sites which we recorded are set back from the shore, sheltered from winds off the sea and sea ice. It is probable that spring seals and walrus and late summer/fall birds and caribou were sought at these sites. Some may also have been occupied by people awaiting suitable weather in which to round Cape Uivak or proceed south across stretches of ocean exposed to the very strong winds which funnel out of the valleys and fjords on the north coast.

DISCUSSION

The survey was successful in that we were able to record 18 new prehistoric and historic sites in the 3 km of shoreline and adjacent interior walked. These range in age from at least ca. 4000 B.P. Maritime Archaic to recent Inuit. Most sites are similar in that a single family or more likely a very few small families occupied them for a brief period of time, probably during warmer weather seasons such as spring and late summer/fall. Some may have served only as travel stops. The proximity of modern caribou trails to many of the sites and the presence of a caribou ambush set-up indicate this species as one focus of subsistence attention, as is the case at Nulliak Cove a few kilometres south (Fitzhugh 1984). Caribou arrive on the outer coast in spring and, although they are not in the best of shape at this time of year, they offer a possible alternative to marine resources. The Inuit bird blinds and our own observations suggest that geese and ducks were also obtained here, after the advent of firearms, at least; faunal remains indicate that seals were the probable main subsistence source, available on the sea ice, at breathing holes, or at the ice edge.

Among the Maritime Archaic sites, the small longhouses could possibly be linked with Fitzhugh's (1984: 10) 5000-6000 B.P. period. The presence of

Saglek quartzite is also usually associated with the earlier Maritime Archaic period in northern Labrador. The earliest radiocarbon date from the Saglek area came from a small lithic manufacturing station at the mouth of Nachvak Brook: charcoal from a hearth was dated to 5020±100 B.P. (Beta-15672). With the exception of a tiny flake of Ramah chert, the debitage and 30 preforms were made exclusively of Saglek quartzite (Thomson 1986: 18-19). In the later Rattlers Bight phase Ramah chert was almost exclusively favoured for chipped stone tools (Fitzhugh 1978) and quartzites are rare. The single Rattlers Bight stemmed point base from IcCp-19 indicates an occupation in the 3700-4000 B.P. period. However, this two segment longhouse is very small, at 7 x 4 m, suggesting that smaller, 1-3 segment longhouses formerly attributed to the early northern Maritime Archaic period (Fitzhugh 1984: 10) actually continued to be used seasonally as extended family temporary hunting camps into the Rattlers Bight period.

Until the Maritime Archaic sites at White Point are more thoroughly investigated it can not be determined whether the longhouse, house pit and tent ring features were re-occupied over several seasons, or whether they represent brief, single occupations. The variety of locations on terraces facing north, south and east perhaps is indicative of a desire to be closer to resources in changing wind, ice or open water conditions, or may simply be a case of the closest port in a storm.

No Pre-Dorset or Groswater Eskimo sites were noted. The few Dorset artifacts collected are from the Middle Dorset period. It seems likely that there was little use of this part of the outer coast by Palaeo-Eskimo groups for hunting; a similar situation was found on a several kilometre-long system of terraces on the mainland west of Kangalasiorvik Island on the north side of the entrance to Saglek Bay (Thomson 1983). In contrast, however, are the substantial Middle and Late Dorset sites in Itigaiyavik Cove (IdCr-43), a few kilometres north of Kangalasiorvik Island (Fitzhugh 1984), and on Shuldham Island (IdCq-22) (Fitzhugh 1980b; Thomson 1985, 1988a,b). These sites are sheltered from the north, and located for easy access to open water where the pack ice grinds past Cape Itigaiyavik and Big Island (Kaplan 1983: 76). The open water between the land or land-fast ice and the pack ice concentrates walrus, small whales, seals, polar bears and some bird species and was an important seasonal subsistence focus for the Dorset throughout late winter and spring (cf. Cox and Spiess 1980). Major Pre-Dorset and Groswater sites are, for the most part, found on the inner islands (Tuck 1975) and sheltered mainland coves (Thomson 1986).

Neo-Eskimo sites were not intensively examined due to time limitations. Few of the structures are built of multiple courses or vegetation-covered and no nephrite or ground slate was noted (cf. Kaplan 1985); it seems likely, therefore, that most of the White Point sites are from the late Neo-Eskimo or Labrador Inuit periods.

Unfortunately, we did not have time in our one available day to survey either White Point itself, much of the coastline west and south towards Tigigakyuk Inlet, or alternative interior travel routes and hunting and fishing areas. The combination of ponds, narrow valleys and saddles, and steep hill slopes north and west of Tigigakyuk towards St. John's Harbour offer good caribou hunting situations, and the pond and river system is used by spawning and wintering char (Brice-Bennett 1977: Map 37).

Site IcCp-36, consisting of a longhouse and possibly-associated caribou blind system, is the third caribou fence found in the Saglek area; like the others its original builders have not yet been identified. A stone fence (IdCr-38) on the mainland west of Kangalasiorvik Island (Thomson 1983: 16) was utilized if not constructed by Middle and Late Dorset Eskimos, judging by endblades found in association. This system is quite elaborate, encompassing steeply sloping ground falling off into the sea, very large in-situ boulders and man-made boulder blinds in two sets 100 m apart to constrict and confine caribou travelling on the several deep trails. The second is a simple, semi-circular boulder blind on Shuldham Island adjacent to a well-used caribou trail on a 100 m wide ridge between a pond and the sea. It is situated 30 m away from an Early Dorset site (IdCq-35) but is not necessarily associated with it (Thomson 1981: 12).

Fitzhugh (1984: 18-20, Figure 5) recorded a small caribou fence west of Nulliak Pond, IbCp-25, which is quite similar in nature to the White Point system and appears to be connected (Fitzhugh 1984: 18) to the Nulliak Maritime Archaic occupation. A larger fence, IcCq-2, was found northwest of Nulliak near Mikkitok Lake (Fitzhugh 1984: 18). Either or both may have been built by

Maritime Archaic although IcCq-2 was at least utilized by Neo-Eskimos. Several caribou fences were identified (Fitzhugh 1984: Figure 4) adjacent to the deep trails running through the Nulliak Cove site (IbCp-20); observations in 1983 of the timidy of caribou circling the Nulliak pond, in close proximity to excavating archaeologists, and the presence of fences and many suitable natural places of concealment for hunters confirm that caribou would have been an easily-taken resource at this extensive site.

Another caribou fence recorded by Fitzhugh (1980a) 200 km north on Cape Kakkiviak is almost certainly of Middle Dorset construction. Thus, in Saglek and elsewhere, we are presented with the intriguing problem of assigning cultural affiliation to caribou fence construction, investigating adoption of the features or the idea by successive cultural groups, establishing the related social and economic structures which permitted or encouraged the use of caribou fences on the outer coast, and investigating for each culture whether or not the larger aggregations of caribou in the far interior were exploited as additional, alternative, emergency or regular seasonal resources. Our observations over a decade of archaeology in Saglek of fearless, curious caribou in groups of a few to several thousand indicate that this would be an easy prey to secure, especially with the aid of blinds and natural topographic features. It seems inconceivable that such a fairly dependable resource essential for the manufacture of winter clothing as well as for its meat and other materials would have been ignored by any of the cultural groups occupying this coast from spring to early fall.

While little should be firmly concluded from a single day's survey, the results do seem to confirm earlier findings in the Saglek area that the Maritime Archaic were well adapted to exploitation in the outer coastal region at least, most likely, in the spring months. The ten Maritime Archaic sites in the White Point area, combined with the more extensive sites at Nulliak Cove, Windy Cove (IbCq-6) and Windy Terraces (IbCq-5) (Fitzhugh 1984) and the longhouse sites on Big Island (Thomson 1983, 1984, 1986), fit the predominantly outer coast distribution of known sites elsewhere on Labrador's north coast (Fitzhugh 1984: Figure 6). This contrasts quite sharply with the paucity of major Maritime Archaic sites in inner Saglek Fjord, but does little to solve the problem of association of local groups with particular bay/fjord complexes or north and south along the coast, band membership, or other indications of territoriality.

CONCLUSION

The half-day survey of the coastline and near interior around White Point resulted in the recording of 18 new sites ranging from Maritime Archaic through Dorset to Neo-Eskimo. The presence of so many Maritime Archaic sites on the outer coast and islands (Tuck 1975; Fitzhugh 1980b; Thomson 1981, 1982, 1983, 1984, 1986) and their paucity in the inner reaches of Saglek Fjord (Tuck 1975; Thomson 1986) support the hypothesis that in this region the main subsistence focus of Maritime Archaic people was towards outer coastal resources, and that travel and inter-group connections were effected along the coastal margin.

Until more investigations are conducted at the Palaeo-Eskimo and Neo-Eskimo sites described, little can be said about their temporal positions other than that at least some of the Inuit sites date from the very recent period. Access to and possession of firearms and machine-powered transportation, the need or desire to supply non-traditional markets with resources such as char, cod, seals and furs in addition to providing subsistence needs, and the lack of competition with other cultural groups for food and other raw materials in the last century or so account in part for the ubiquitousness of Inuit sites here and elsewhere in northern Labrador. However, a great deal of work has yet to be done to identify functional, seasonal and temporal differences in Inuit, Neo-Eskimo (and Maritime Archaic) boulder structures (cf. Allison 1986; Kaplan 1985).

Future investigations in this area should include near-interior travel routes and food resource areas and more of the coastline north and south from White Point to provide further information on prehistoric settlement and subsistence patterns and inter-region contacts between the Nachvak/Ramah region, Saglek and Hebron, and beyond. From our observations of caribou and well-worn caribou trails in 1986 and previous years and the accumulating evidence of caribou hunting technology, it seems likely that this animal was an important, if secondary focus for subsistence on the coast from late spring to early fall in addition to other migratory and local species such as birds, their eggs, fish and sea mammals. Identification of areas likely to contain boulder fences and natural features involved in the exploitation of caribou can provide concrete evidence of subsistence foci and hunting methods not preserved for other species. Investigation of the technology involved in caribou hunting and the relative importance of this species in various seasons and cultures still remains (cf. Fitzhugh 1979, 1981) a largely untapped area of research in Labrador.

ACKNOWLEDGEMENTS

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APPENDIX — Sites recorded in 1986

White Point 1	IcCp-19	Maritime Archaic
White Point 2	IcCp-20	Neo-Eskimo
White Point 3	IcCp-21	Neo-Eskimo
White Point 4	IcCp-22	Maritime Archaic
White Point 5	IcCp-23	probable Maritime Archaic
White Point 6	IcCp-24	Neo-Eskimo
White Point 7	IcCp-25	Maritime Archaic
White Point 8	IcCp-26	Labrador Inuit
White Point 9	IcCp-27	Labrador Inuit
White Point 10	IcCp-28	Neo-Eskimo
White Point 11	IcCp-29	Maritime Archaic
White Point 12	IcCp-30	Maritime Archaic
White Point 13	IcCp-31	Neo-Eskimo; probable Dorset
White Point 14	IcCp-32	Maritime Archaic; Middle Dorset; Neo-Eskimo
White Point 15	IcCp-33	Maritime Archaic; Neo-Eskimo
White Point 16	IcCp-34	Maritime Archaic; Neo-Eskimo
White Point 17	IcCp-35	Labrador Inuit
White Point 18	IcCp-36	Maritime Archaic; possible Neo-Eskimo

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Figure 1. White Point, Saglek Bay/Fjord, and other places mentioned in text.

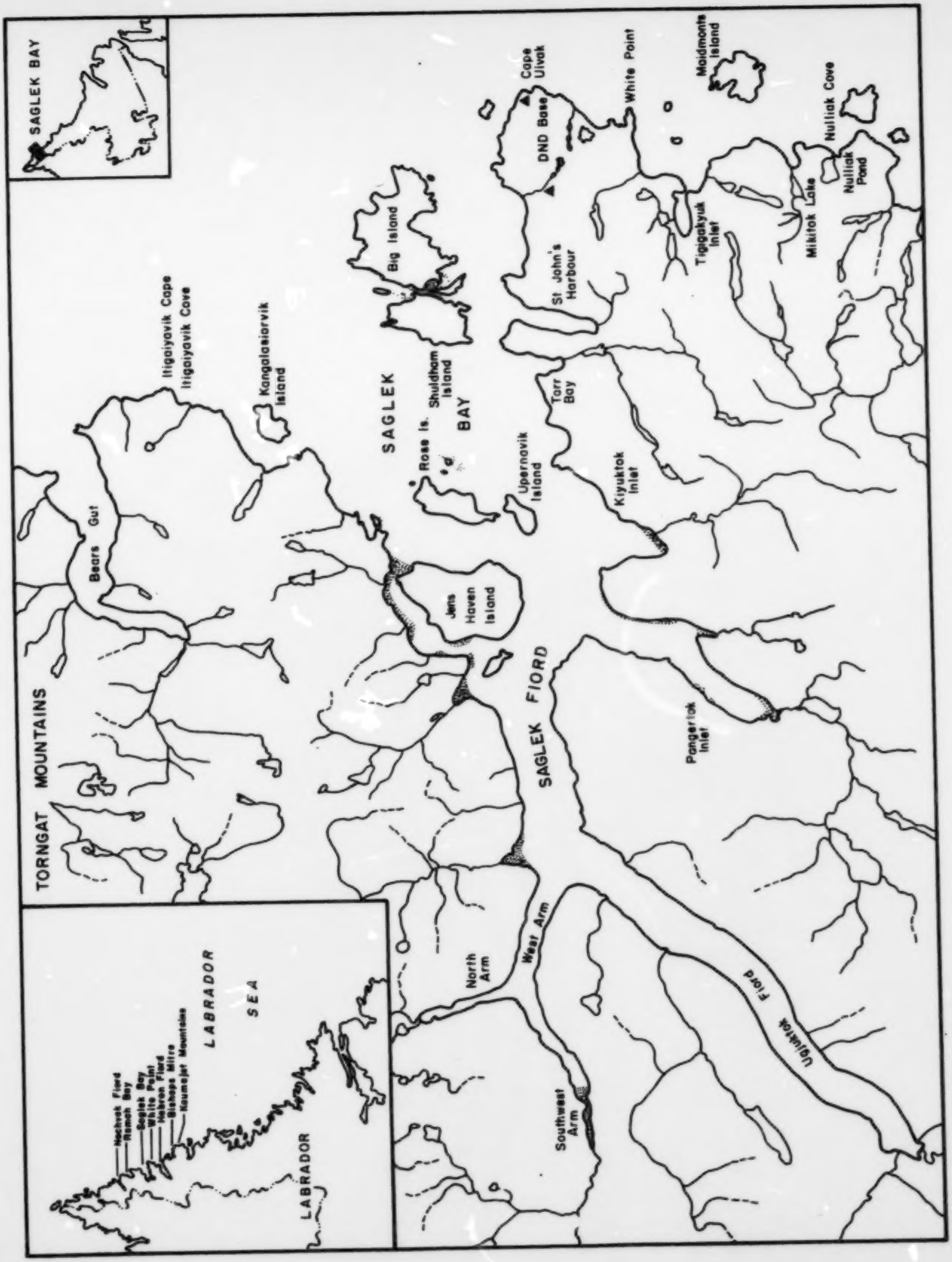

SAGLEK BAY
TORNGAT MOUNTAINS
Bears Gut
Itigaiyavik Cape
Itigaiyavik Cove
Kangalasiorvik Island
SAGLEK
BAY
Rose Is.
Shuldham Island
Big Island
Upernavik Island
Jens Haven Island
SAGLEK FIORD
Torr Bay
Kiyuktok Inlet
St John's Harbour
DND Base
Cape Uivak
White Point
Maidmonts Island
Tigigakyuk Inlet
Mikitok Lake
Nulliak Cove
Nulliak Pond
Pangertok Inlet
North Arm
West Arm
Southwest Arm
Ugjuktok Fiord
LABRADOR
SEA
LABRADOR
Nachvak Fiord
Ramah Bay
Saglek Bay
White Point
Hebron Fiord
Bishops Mitre
Kaumajet Mountains

Figure 2. Artifacts from White Point sites. Actual size.

a. Maritime Archaic biface medial section, Ramah chert, IcCp-33: 1
b. Maritime Archaic biface distal section, Ramah chert, IcCp-34: 1
c. Maritime Archaic retouched flake, Ramah chert, IcCp-34: 3
d. Maritime Archaic stemmed biface proximal section, Ramah chert, IcCp-34: 2
e. Dorset flake endscraper, Ramah chert, IcCp-32: 1
f. Dorset uniface medial section, Ramah chert, IcCp-32: 2
g. Dorset tip-fluting spall fragment, Ramah chert, IcCp-32: 3
h. Core, tan chert, IcCp-19: 2
i. Maritime Archaic stemmed biface proximal section, Ramah chert, IcCp-19: 1
j. Maritime Archaic biface medial section, fire-altered Ramah chert, IcCp-36: 1

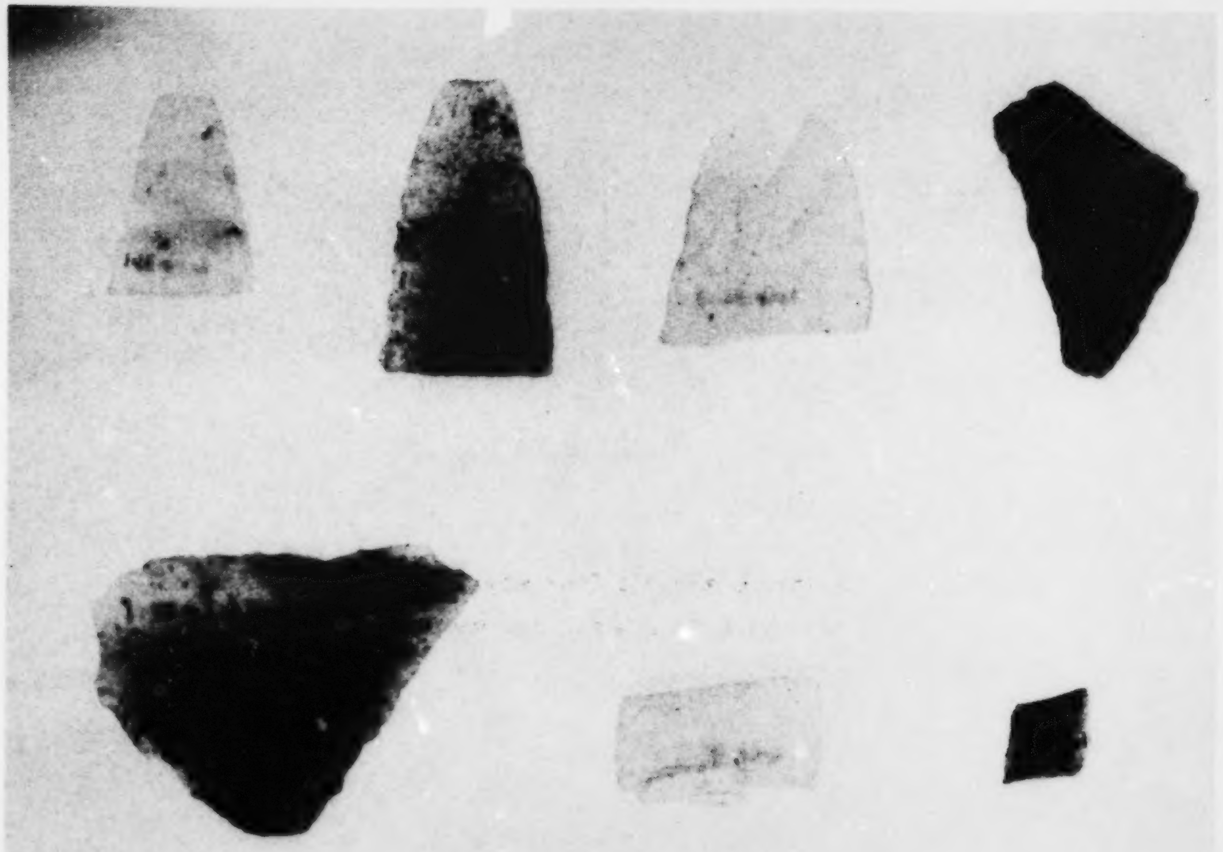
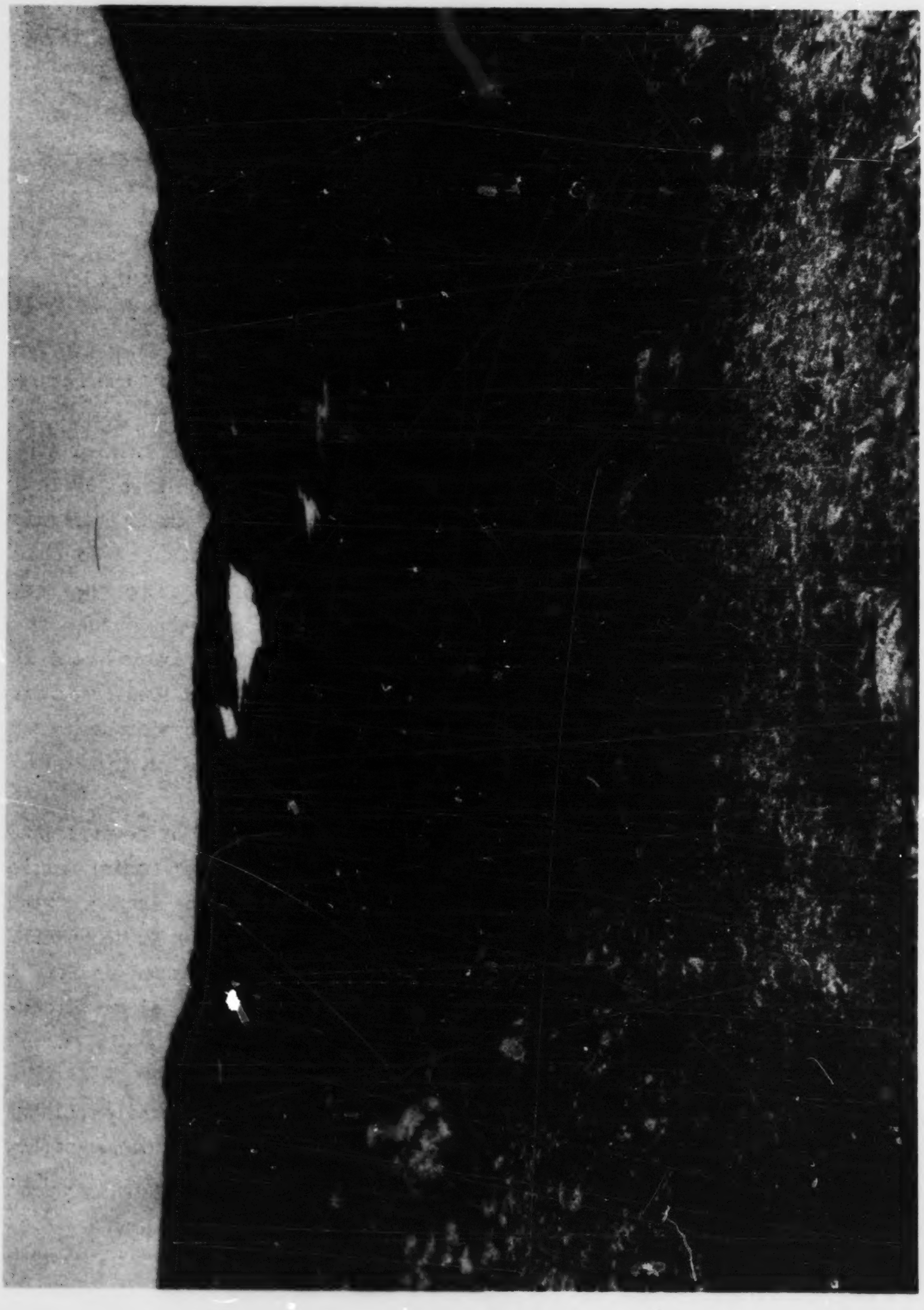


Figure 3. Maritime Archaic four segment longhouse (IcCp-33) measuring 15 x 4 m, view east. Tent ring in foreground.

Figure 4. Caribou fence system (IcCp-36) in foreground, Maritime Archaic longhouse in boulder field mid-centre; IcCp-33 on beach terrace rear-centre; Inuit burial area and Maritime Archaic three-longhouse site (IcCp-34) over flat pass, left-centre.



TIKKOATOKAK (HdCl-1): A LATE PREHISTORIC INDIAN SITE NEAR NAIN

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INTRODUCTION

> "The view was grand but strange; everything the eye embraced was typical Labrador." (Durgin 1908:95)

A research project was begun in 1982 which sought to clarify the nature of the social and economic changes experienced by the Indian people of Labrador during the late prehistoric and early historic periods. Initial survey work along the central Labrador coast and adjacent interior river valleys (Loring 1983) was followed by excavations at several important prehistoric sites in 1984 (Loring 1985). Two principal goals have structured this research: 1] the project seeks to establish the relationship among the late prehistoric Point Revenge culture, its antecedents, and the succeeding Montagnais-Naskapi Indian groups (the Innu) of the historical records, and 2] it seeks to understand how and why social boundaries and ethnic identities are maintained by the prehistoric and historic Indian groups in Labrador despite a number of dramatic culture-contact situations which resulted in pronounced changes in settlement-subsistence patterns.

During the 1984 field season, excavations were conducted at several late prehistoric Indian sites. The most important of these sites, at Daniel Rattle (GlCg-1), just west of Davis Inlet, is the earliest site in the sequence with radiocarbon dates of 1500±120 B.P. (SI-6714) and 1890±50 B.P. (SI-6712). Faunal analysis of calcined bone fragments from hearths excavated at Daniel Rattle attest to the successful exploitation of both terrestrial resources, principally caribou, as well as maritime resources, including seals and -- surprisingly -- walrus.

In Labrador, formal stylistic changes apparent on projectile points, from types characterized by broad side-notches to types with deep, narrow corner-notches to notched flake points and "micropoints", and radiocarbon dating provide a typological and chronological framework with which to observe social and economic changes among the prehistoric Indian groups. In many respects these typological changes in projectile points and associated radiocarbon dates parallel similar changes observed in late prehistoric Indian cultures in Newfoundland (Austin 1984). However, there are a number of differences between the Labrador and Newfoundland collections, significantly in the choice of raw materials, so that it will prove useful to maintain distinct regional sequences although both populations share a similar cultural tradition.

Despite the increased pace of archaeological work in Labrador, late prehistoric and protohistoric Indian sites have remained elusive. Although a few deeply corner-notched projectile points have been recovered as isolated finds at Saglek (Thomson 1982) at Nulliak, Oakes Bay near Nain, and Davis Inlet (Fitzhugh 1978), and in the village of Nain during construction of the new school in 1986, only a single small campsite of this period north of Hamilton Inlet has been excavated to date. This site, Koliktalik-5 (HdCg-22), is situated on an outer island in the Nain archipelago (Fitzhugh 1978: 164) at a location convenient for late winter-spring ice-edge hunting; it has been radiocarbon dated at 735±60 B.P. (SI-2985).

During the early summer of 1978, Torngat Archaeological Project crew members discovered and tested a late prehistoric Indian site (HdCl-1) in Tikkoatokak Bay northwest of Nain (Figure 1). Tikkoatokak Bay is one of a pair of deep fiord-like valley troughs that extend inland from the coast and which provide a means of access to the interior and the barrenlands plateau country between the Labrador coast and the George River valley.

In 1978, research priorities did not allow for more than a cursory investigation of the site during which several diagnostic corner-notched projectile point fragments were recovered from a pair of partially deflated hearths that were found eroding along the front of a high terrace.

Given the paucity of late prehistoric Indian sites in Labrador a return to the site at Tikkoatokak was made a priority of the 1986 field season. During the first week of August, the author, accompanied by John Terriak from Nain, relocated the site and spent four days there mapping and excavating.

SITE REPORT

Location: Tikkoatokak-1 is located approximately 20 km northwest of Nain at the mouth of Tikkoatokak Bay, just south of Cape Toski and Conch Bay. The site is on the east side of the bay adjacent to a conspicuous rattle (a tidal rip) caused by the constriction of the bay. An unusual glacial feature, a pile of massive erractic boulders forming a small offshore island, marks the vicinity of the site. According to John Terriak, the Inuit place name is Inhanailuk, "the big, strong tidey place". Wheeler (who visited the area at the beginning of a winter caribou hunt in 1928) has recorded this as "Ingeramialuk" (Wheeler 1930).

From the shore, the terrain rises sharply to a first terrace at 10 m above sea level. The remains of four circular tent-rings, not of any apparent antiquity, and some recent fox-trap berths are situated along the edge of this first terrace. The late prehistoric Indian component is located on the second terrace which is between 15-16 m above sea level. The second terrace is 30 m wide and rises gently through hummocky ground to a broad stand of spruce which covers much of the flanking hillside.

Description: Erosion has significantly altered the shape of this second terrace which runs parallel to Tikkoatokak Bay. Investigators were initially drawn to the vicinity by an exposed section of the terrace 100 m east of the site location. Although most of the terrace is presently stabilized, due to a thick luxuriant carpet of crowberry, Labrador tea and caribou moss, past erosional episodes and active meltwater channels have transformed the terrace into a series of segmental land forms of which the one on which the site is located is nearly 50 m long. Two small blowouts, each roughly 3 m in diameter, have occurred along the terrace edge. Both of these blowouts contained the remains of partially deflated hearths as evidenced by fire-burned cobbles, fire-cracked rock, calcined animal bone fragments, Ramah chert debitage and a few tool fragments.

After relocating the site, a grid was established parallel to the terrace edge to facilitate excavation and mapping. The remains of the hearths which were found eroding into the blowouts were excavated first. A single cobble hearth was found partially eroded in the western blowout. This hearth, Feature 1, had been discovered by Torngat Project personnel in 1978. After mapping and collecting the material exposed in the blowout we expanded our excavations to expose the hearth and adjacent living floor which was still in situ. The remains of an oval hearth, 1.5 m in diameter, was found composed of small beach cobbles, charcoal and ash (Figure 2). The hearth was situated immediately below the surface vegetation on the top of the white beach sands that compose the terrace. A light scatter of Ramah chert flakes and fragments of calcined animal bones were found in the immediate vicinity of the hearth and a small collection of tools (3 small corner-notched projectile points, 2 biface fragments and 4 utilized flakes) was recovered adjacent to the hearth's southeast corner.

A somewhat smaller, but more elongated, blowout occurs 20 m to the east of Feature 1. This blowout is situated along the southeast edge of the terrace adjacent to a small seasonal meltwater stream that has deeply incised a bed through the terrace sands. Researchers in 1978 had discovered a second hearth feature, Feature 2, eroding out from the terrace. We exposed the remainder of the hearth that was in situ and opened up the adjacent 2 m^2 unit to the north in an effort to locate activity areas and artifacts that might have been adjacent to the feature. Three broken corner-notched projectile points, a utilized flake, two large leaf-shaped bifaces which had been fractured by exposure to fire, a biface fragment, and a sparse scattering of Ramah chert and quartz debitage were recovered from the immediate vicinity of the hearth. Charcoal and calcined animal bone fragments were also present.

A third hearth, Feature 3, was located while clearing back some of the vegetation cover in the eastern blowout. Feature 3 was the easternmost hearth located on the terrace (Figure 3). It consisted of two overlapping circular fire-cracked stone pavements, each about 1 m in diameter. Only the proximal portion of a stemmed biface of Ramah chert was found associated with the hearth; neither debitage nor calcined bone fragments were recovered.

In order to determine the extent of the occupation at Tikkoatokak a series of test-pits was excavated along the front of the terrace in an effort to locate additional hearth features. This proved to be a laborious undertaking as the 20 cm thick vegetation carpet, which completely covered all the terrace with the exception of the fortuitous blowouts, was very time consuming to remove. John Terriak, disgruntled with the traditional test-pit procedure, had removed the harpoon head from his harpoon and used the long steel foreshaft as a probe to locate hearth stones beneath the vegetation. Walking back and forth along the terrace edge he systematically probed out the location of an additional four hearths.

Feature 4, 4 m to the east of Feature 1, was the most substantial hearth excavated. It consisted of an oval arrangement of fire-cracked rocks and small beach cobbles 50 cm wide and 1 m long which rested on a 5 cm thick bed of charcoal-stained sands, ash, and calcined bone fragments. A large flat hearth-stone, 30 cm in diameter formed one end of the hearth; its broad flat surface could have served as a place to put things next to the fire to be heated or dried, or as a cleared working area. A biface fragment and portions of two small corner-notched projectile points were found beside the hearth-stone and a scatter of small biface thinning flakes was recovered from one side of the hearth. All of the flakes, as well as the artifacts, were made of Ramah chert.

John Terriak located two hearth features west of the blowout containing Feature 1. Feature 5, 9 m west of Feature 1, was a small oval hearth, approximately 70 cm in diameter, composed of fire-cracked and heat-shattered rocks. No artifacts or debitage were associated. At the western end of the terrace, 21 m from the Feature 1 blowout, another circular cobble-stone and fire-cracked rock feature was discovered. Feature 6 was almost 1 m in diameter and also had no artifacts or debitage associated with it. John also discovered a final feature, Feature 7, situated approximately half way between the two blowouts which we did not have time to excavate.

The seven hearth features at Tikkoatokak are spaced between 5-10 m apart and are all within 5 m of the terrace edge. A series of test pits placed between the hearth features failed to locate any additional activity areas and excavations around the hearths did not reveal any structural features like tent-rings or earthen walls.

Artifacts and debitage: When the various fragments recovered from the 1978 and 1986 excavations were fitted together approximately twenty tools, from 4 hearths, were represented in the Tikkoatokak collection (Figure 4). Of these there were four principal tool types: corner-notched projectile points (8 more-or-less complete specimens, 4 fragments), large broad-bladed triangular bifaces (2), a stemmed biface (1) and utilized flakes (4). As has been documented at other late prehistoric Indian sites, Ramah chert, whose nearest source near Ramah Bay is at least 300 km to the north of Nain, is the overwhelmingly dominant lithic choice. With the exception of one of the large broad-bladed bifaces which was made from a black chert -- probably from an outcrop in the Kaumajets near Cape Mugford (165 km north of Nain) -- all of the tools at Tikkoatokak were made of Ramah chert. A few very small resharpening flakes of the translucent green chert and some black and brown chert flakes were collected from the hearth features and are attributable to Cape Mugford sources. There is a single small pressure flake of mottled brown chert which appears to be from one of the west coast of Newfoundland sources (Nagle 1986: 100-101).

Corner-notched projectile points are one of the hallmarks of the late prehistoric Indian manifestation in northern Labrador. Three varieties are apparent in the Tikkoatokak collection: 1] A small, bifacially-retouched flake point was recovered from Feature 2. It has minute corner-notches and in comparison with the other projectile points may be considered as a class of expedient tools easily and quickly manufactured. A hinge fracture at the base may have inhibited hafting and resulted in its being discarded. 2] A second projectile point variety is represented by the three specimens from Feature 1 and a single specimen from Feature 4. These bifacially worked points are between 2.5-3.5 cm in length, with straight to slightly excurvate base and sides. Three of the four specimens have either one or both of the basal tangs broken off and two have impact fractures at their distal ends (breakage patterns that are remarkably similar to those induced experimentally by Flenniken and Raymond [1986: 607 and Figure 6]). The point of origin of the stress resulting in the basal fractures comes from the side of the blade, or one of the faces, implying that the fractures resulted from tool usage and not from problems in manufacturing. 3] The third variety of corner-notched projectile points is represented by three specimens from Feature 2. This variety is much larger (mean = 6.0 cm) and broader than the other types. These corner-notched bifaces have rounded, slightly excurvate bases and generally straight edges. At least one of the specimens retains a pronounced curvature having been manufactured from a large flake. Although recovered in their entirety, all of the specimens had been broken in antiquity. Unlike the smaller projectile points, which evidenced extensive damage to their tips and to their hafting elements, these specimens suffered from breakage in the middle of the blade above the point where they would have been hafted. Apparently these tools were used for butchering or other cutting activities. Two of the specimens had been discarded by being placed in the hearth while a fire was burning and as a consequence suffered numerous transverse fractures.

Two large straight-based broad-bladed bifaces were recovered from the Feature 2 hearth. This class of tool is regularly encountered at late prehistoric Indian sites in Labrador. Both specimens had been placed in the hearth and had been shattered by their exposure to heat.

The proximal portion of a straight-sided stemmed biface was the only artifact recovered from Feature 3. Two additional biface fragments and four utilized flakes complete the Tikkoatokak assemblage.

Faunal analysis: Both cultural and bioenvironmental processes figure in the paucity of faunal material recovered from late prehistoric Indian sites in Labrador. Sites situated on raised marine beaches are frequently exposed, or at best covered by a thin vegetation mantle. Deleterious climatic conditions and acidic beach soils coupled with the transient nature of these Indian hunting camps have not been conducive to the preservation of faunal materials. The late prehistoric Indian sites that have been excavated are not characterized by the rich midden accumulations found at coeval Dorset and Neoeskimo winter sites. Furthermore, Algonkian ethnography amply testifies to the pervasive belief practices surrounding the disposal of animal remains; it seems a fair assumption that similar practices were prevalent in the past. To date, the only evidence of late prehistoric Indian subsistence strategies has come from the cultural practices of disposing of animal bones in camp fires (Henriksen 1973; Speck 1935; Tanner 1979). At Tikkoatokak, numerous tiny calcined bone fragments were recovered from the excavation of Features 1, 2 and 4. All of the faunal material was submitted to Arthur Spiess whose analysis (Spiess 1986: personal communication) forms the basis of the following:

> Feature 1. Approximately 837 small calcined bone fragments were recovered and for the most part appear to be derived from the long bones of large mammals. The only skeletal

elements to retain some semblance of their size and shape and thus facilitate identification were the small and compact toe and foot bones of a caribou (*Rangifer tarandus*). The 15 phalanges, 2 sesamoids, carpal and tarsal bones could be attributed to a single individual.

Feature 2. Approximately 200 small calcined bone fragments were recovered of which a single distal phalange II attributed to an unspecified species of seal (*Phoca* sp.) was identified.

Feature 4. 165 calcined bone fragments were recovered, half of which were identifiable as mammal longbone. Four phalanges, a metatarsal and a metapodial attributable to caribou were identified. All of the bones could be from a single individual.

Radiocarbon dating: Between the exposed outer islands with their tundra vegetation and the dense stands of spruce at the heads of the inner bays, is an open boreal forest parkland that characterizes much of the sheltered coastline in the Nain region. The dominant plant species in this ecotone include spruce, alder and thick carpets of caribou moss. During the summer when this moss dries out it is very prone to wildfires. The principle source of fires is most likely of human origin although electrical storms, while uncommon, do occur during hot muggy spells in the summer. In light of this possibility care must be taken when collecting charcoal from shallow beach ridge sites in Labrador as evidence of prior forest fires is ubiquitous. At Tikkoatokak, some charcoal was apparent in the overlying moss and peat vegetation; as a consequence charcoal for radiocarbon dating was carefully collected from the *lower* levels of the hearths. The hearths at Tikkoatokak consisted of a layer, or pavement, of small stones and fire-cracked rocks which had accumulated over a bed of ash and charcoal which varied from 3 to 5 cm in thickness. Charcoal collected from within the ash lens was least likely to be contaminated by later events. Pretreatment of the radiocarbon samples included removal of rootlets and an acid treatment to remove carbonates and humic acids. The following dates were received from Beta Analytic:

Feature 1: (Beta 20124): 1030 ± 130 B.P.
Feature 2: (Beta 20125): 1450 ± 60 B.P.
Feature 4: (Beta 20126): 1180 ± 80 B.P.

These dates are approximately 300 radiocarbon years earlier than had been anticipated. The Tikkoatokak assemblage is most similar to the collection from Koliktalik-5 and a similar age (735 B.P.) was expected. The concordance of the Tikkoatokak dates makes a strong case for their veracity. However, this investigator refrains from endorsing the dates wholeheartedly; a possible source for the dating discrepancy may be derived from the extraneous charcoal originating from forest fires, as previously referred to. The implications of this problem are discussed further below.

CONCLUSIONS

In March of 1980 I was fortunate to be able to accompany a small party of Inuit hunters from Nain on a caribou hunting trip to Siaminik and the barrenlands about the headwaters of the Kingurutik River. The route to the interior led down to the head of Tikkoatokak Bay and up the deeply incised glacial-trough valley of the Kingurutik. Access to the barrenlands plateau country north and west of Nain is difficult due to the nearly continuous cliff walls which front the sea. Only by following the beds of rivers and tributary streams can the caribou hunting grounds in the interior be reached. It is an hour or so, depending on the roughness of the ice, for snow machines from Nain to reach the "smoking water" at the mouth of Tikkoatokak Bay. Because the strong tidal current keeps this area open throughout the winter, a slight detour up on the shore is necessitated and the opportunity is usually granted to stop for a few moments, stretch, check komatik lashings and look over the open water. Such ice-free leads as the one at Tikkoatokak are scattered about the Nain archipelago and are always looked over by passing Inuit hunters. The open water can be a trap for some species of seals as well as for pelagic birds (especially the little "bool birds", a.k.a. Bull Birds or Dovekie, _Plautus_ _alle_ _alle_) which are on occasion blown inland by winter storms.

Situated on the high terrace above the rattle, the late prehistoric Indian site at Tikkoatokak commands an excellent view of the open water, yet it is situated far enough away not to disturb any game that might be in the vicinity. Commenting on the resources of the area, John Terriak writes it is a "good place to hunt seals on new ice because the harp seals are still around then and they congregate in the holes around INHANAILUK and Pardy Island and are very easy to get at. In the winter some times you can get Jar seals there if you want. When there are Ptarmigan around you can get them too because they seem to like the hill sides and woods there" (Terriak 1987: personal communication).

The hearth features, without any evidence of more substantial structures, and the sparse tool assemblage, with its limited repertoire of hunting and butchering tools, strongly suggest that the site was a briefly occupied hunting camp used while en route to more substantial base camps on the seaward islands or at the heads of the bays. No evidence of seasonality can be derived from the faunal remains so it is only the circumstantial evidence of the appropriateness of the spot as a camp established on account of the open water lead that supports the contention of a winter/spring occupation.

According to Pep Wheeler (1953: 86-87) Tikkoatoqaq means "the old pointer finger", but whether this refers to a personification of local landforms or to the direction of travel, with the promise of game in the interior, or on the outer islands, is unknown to this investigator.

The stone tool assemblage from Tikkoatokak is significant. The similarities in stylistic attributes, in raw material preferences, and in the spatial arrangements of hearths, all suggest that the various features are essentially coeval. It is doubtful that the hearths were all used simultaneously; rather they probably represent the reoccupation of the site by the same party or parties over the span of a few years. The transient nature of the site occupation is further suggested by the very low density of debitage found with the features; several hearths in fact had no associated flakes at all. The debitage is almost entirely characterized by minute resharpening flakes with a few bifacial thinning flakes and indicates that stone tools were being repaired and rejuvenated at the site but were not being manufactured there.

A final, somewhat speculative, note about the stone tools from Tikkoatokak ponders the significance of the relatively large number of artifacts from Feature 2 that were deliberately placed in the fire and destroyed. The same practice has been observed at other late prehistoric Indian sites with some regularity (e.g. Winter Cove-4, Daniel Rattle-1, Kamarsuk and Windy Tickle). Given the deep pervasive spirituality of Northern Algonkian hunters, especially in all regards pertaining to the capture, killing, and processing of animals and animal spirits, it seems possible that some symbolic act is represented by the destruction of the stone tools. For the Innu (the Montagnais-Naskapi) fire plays an important ritual role in the mokoshan, a community thanksgiving feast to celebrate successful hunting. The bones of the honoured animal (usually a bear or caribou) are carefully, ritually disposed, frequently by placing them in the tent stove along with serving utensils and any clothing or bedding which might have come in contact with the animal remains. It seems likely that these contemporary practices mirror ancient traditions.

The late prehistoric Indian period in Labrador. Careful readers of this paper will note that I have avoided using the term Point Revenge complex for the late prehistoric Indian occupation in Labrador. The work of the last several years has considerably expanded our knowledge of the late Indian cultural manifestations that were originally discovered and described by William Fitzhugh (1972, 1978). At the time of Fitzhugh's work there were very little comparative materials available. However, in the last decade much has come to light and there are now a number of late prehistoric Indian sites which are well documented in the Straits region (Loring 1985; Pintal pers. comm.; Levesque ms) and on the island of Newfoundland (Austin 1981, 1984; Pastore 1983, 1984). Stylistic similarities and the distribution of raw materials -- principally cherts but undoubtedly birch bark and other less tangible materials -- evidence some forms of interaction and communication throughout the Atlantic region.

Recent research has also shed light on the formative aspects of the late Indian traditions in both Newfoundland and Labrador. Radiocarbon dated components at the Cape Cove/Cape Freels site at Bonavista Bay, Newfoundland have enabled Austin and Tuck to postulate a tripartite division of the late prehistoric Indian occupation of the Island (Austin 1984): Cow Head complex - A.D. 100-800; Beaches complex - A.D. 800-1200; Little Passage complex - A.D. 1200 to historic period. Stylistic and morphological changes in stone tool assemblages occur throughout this sequence. In Labrador, radiocarbon dated late prehistoric Indian components now span nearly a 1500 year period. In order to maintain the integrity of the now well entrenched terminology it is proposed to divide Labrador's late prehistoric Indian cultures into two phases: the Point Revenge complex remains essentially as described by Fitzhugh in his 1978 report, dating from approximately A.D. 1000 to circa A.D. 1650; while the antecedent Daniel Rattle complex dates from circa A.D. 200 to A.D. 1000. Principal Point Revenge components include the type site at Big Island-1 and Winter Cove-4 in Hamilton Inlet, and Koliktalik-5 and Tikkoatokak in the Nain region. The most significant diagnostic artifact is the deeply corner-notched projectile point.

The Daniel Rattle complex is named after the site from which the principal component of this period has been derived (Loring 1983: 42-43, 1985: 129-130). Other components, as yet not fully reported, include the series of small sites at Postville (Fitzhugh 1978: 160-163), as well as a site on Hillsbury Island in the Nain archipelago. Diagnostic material from Daniel Rattle complex sites includes projectile points with broad side-notches (Fitzhugh 1978: Figure 11a,b; Loring 1983: Figure 2c), lanceolate bifaces and large unifacial cutting and scraping tools.

Throughout the late prehistoric Indian period in Labrador there is a nearly exclusive reliance on Ramah chert for the manufacture of chipped stone tools. At the Daniel Rattle site, impressive quantities of Ramah chert debitage evidence that by this early date cultural mechanisms were well in place to facilitate the distant transportation of large amounts of that raw material. Travel to the northern chert quarries, by either land or sea, would have been a formidable undertaking, not only because of the stark mountainous regions which would have to be traversed, but because of the potential for contact with Palaeoeskimo and later Neoeskimo groups. The social mechanisms that insured access to Ramah chert by the dispersed Indian populations must have functioned in a strongly cohesive manner and played a prominent role in the successful adaptation of the prehistoric and protohistoric Indian people of Labrador.

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As mentor and guide, John Terriak has put up with a lot of foolishness on behalf of this kabloonaat. Over the last nine years, his kindness and generosity have made Nain a home of sorts for an itinerant archaeologist; his

hospitality and that of his family is legend. John greatly facilitated all aspects of this field project while enduring the ceaseless onslaught of mosquitoes, photographs and measurements.

Susan Kaplan and Mary Whelan, members of the Torngat Archaeological Project, discovered the site at Tikkoatokak in 1978 while in the Nain area preparing for their northern departure. Their field maps made relocating the site possible and their notes facilitated subsequent excavations and analysis. William Fitzhugh at the Smithsonian Institution arranged for the radiocarbon dating of the Tikkoatokak hearths. Christopher Nagle contributed his opinions on the derivation of the few odd pieces of debitage that were recovered. Authur Spiess, at the Maine Historic Preservation Commission — a man who has, I suspect, fondled more faunal remains from Labrador than anyone living or dead — graciously examined yet another batch of tiny calcined bone fragments. The Historic Resources Division, Department of Culture, Recreation and Youth, Government of Newfoundland and Labrador provided both permission and funding for a continuation of the research at Tikkoatokak.

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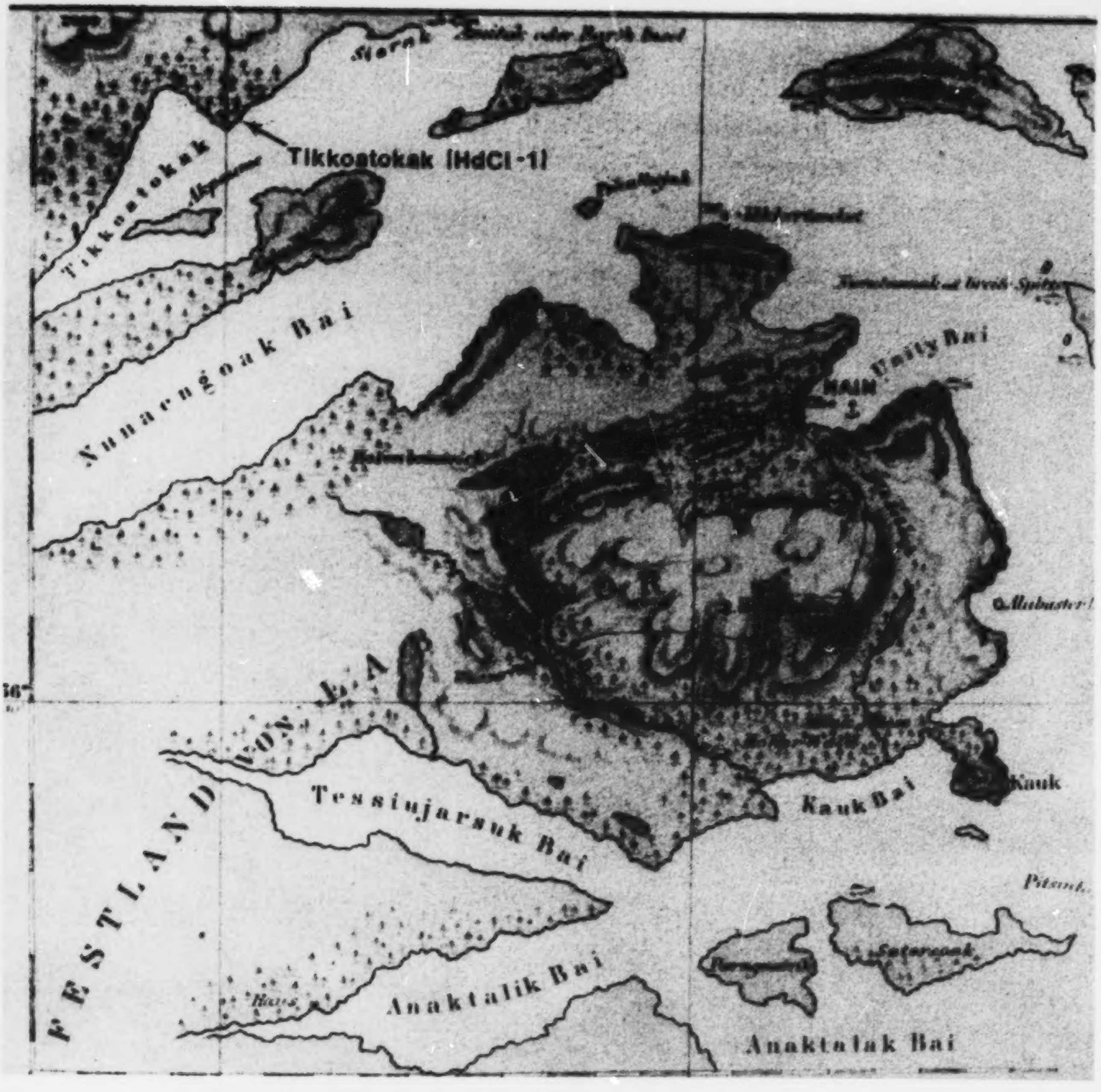
Siorak
Tikkoatokak (HdCl-1)
Tikkoatokak
Nunaengoak Bai
Unity Bai
NAIN
Alabaster I
56°
FESTLAND VON LA
Kauk
Kauk Bai
Tessiujarsuk Bai
Pitsiuk
Anaktalik Bai
Anaktalak Bai

Figure 1: The location of Tikkotoakak-1 plotted on a map by the Moravian L.T. Reichel (1863). Important char fishing stations for the Inuit affiliated with the Nain mission are indicated by the small fish symbol.

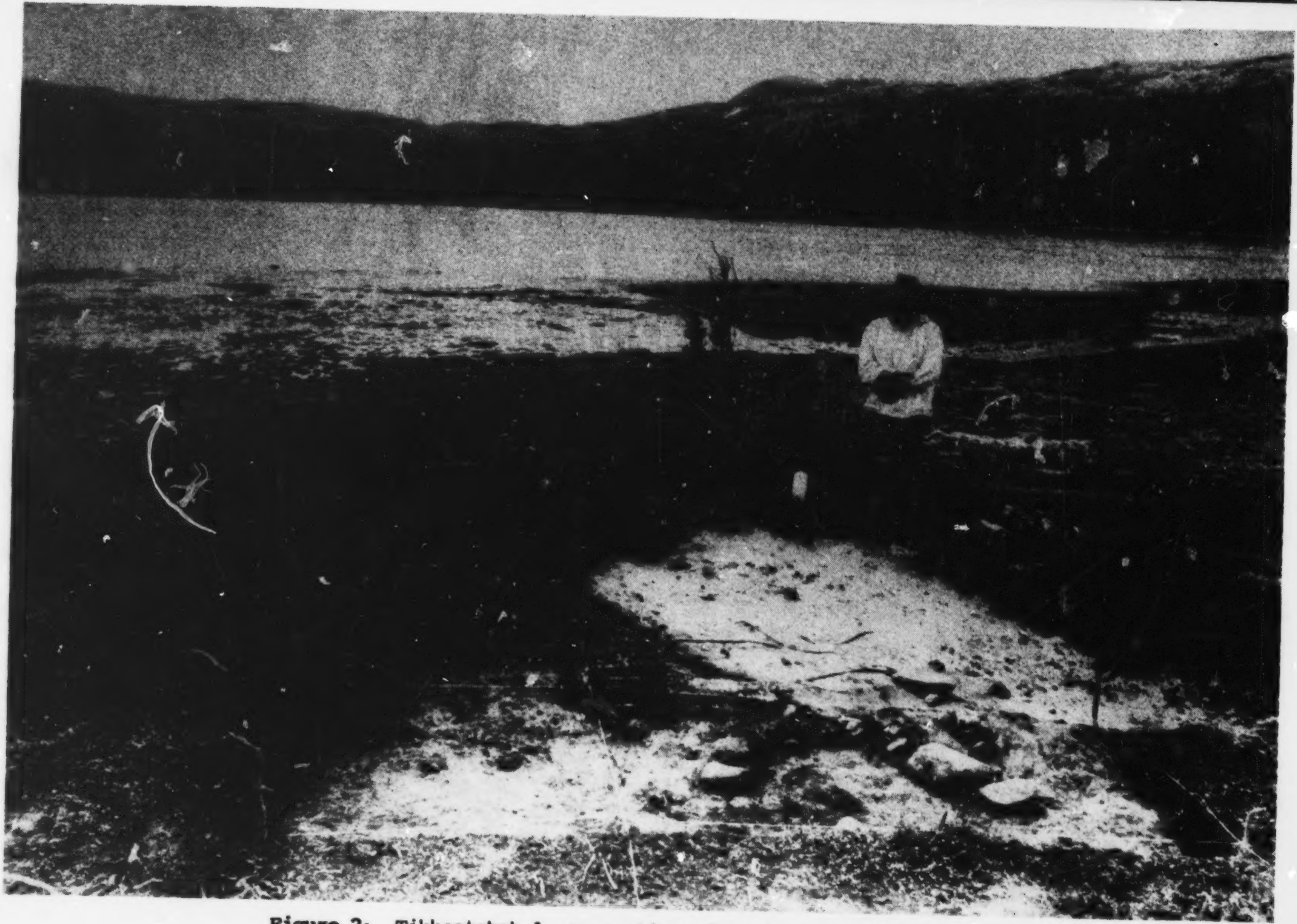

Figure 2: Tikkoatokak-1, excavation of Feature 1, adjacent to the western blow-out, is in progress. View south across Tikkoatokak Bay.

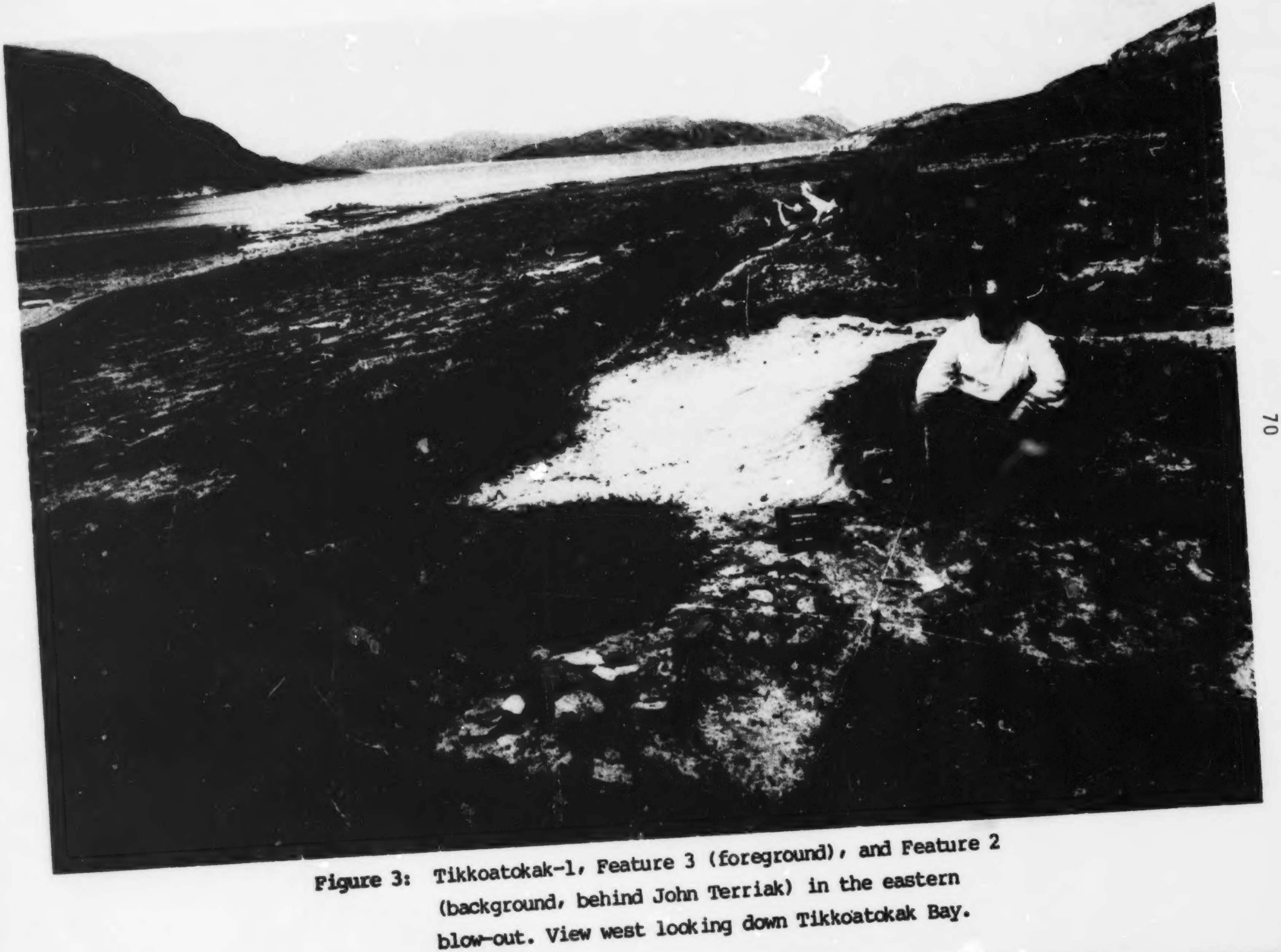

Figure 3: Tikkoatokak-1, Feature 3 (foreground), and Feature 2 (background, behind John Terriak) in the eastern blow-out. View west looking down Tikkoatokak Bay.

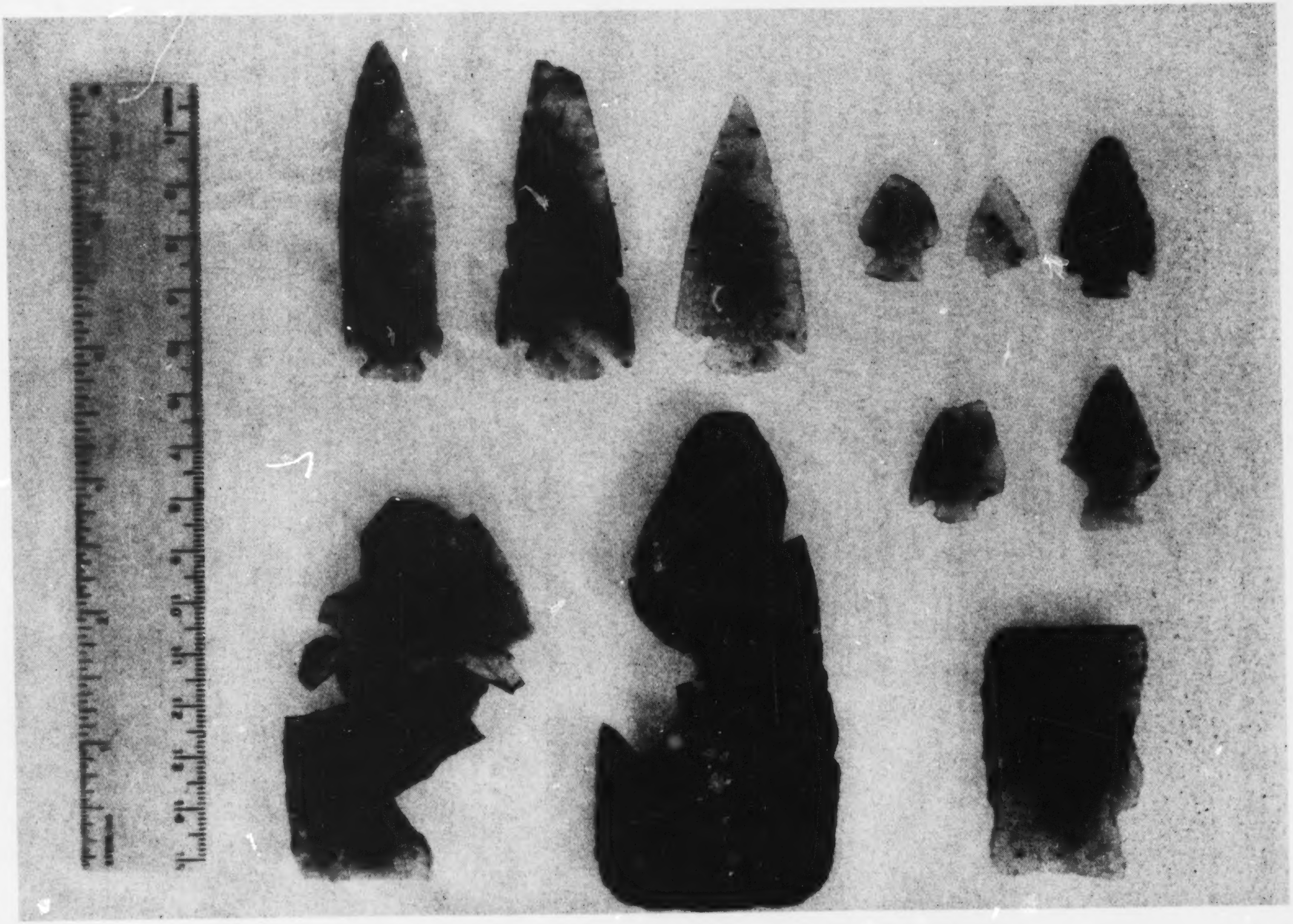

Figure 4: Tikkoatokak-1 Point Revenge component, top to bottom, left to right:
Corner-notched bifaces
Corner-notched projectile points
Large broad-bladed bifaces; stemmed biface (proximal)

ARCHAEOLOGY IN WESTERN LABRADOR

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INTRODUCTION

The study of lithic resource procurement has gained in popularity over the past few years as a method for examining many questions of archaeological import. Data derived from lithic source and distribution analyses have been used in discussions of cultural affiliation, settlement patterms, social dynamics, and exchange networks. This approach appears to hold particular promise for the analysis of prehistoric sites in the interior of northern Quebec-Labrador. Much of this region is composed of rocks forming the Precambrian Shield, a landscape that is generally devoid of high quality silicious stone, although quartz and coarse-grained quartzites are present throughout. In northern Quebec-Labrador, fine-grained, silicious materials with good fracture properties are concentrated within specific, well-defined geological provinces.

Two of these lithic materials, Ramah chert originating on the northern Labrador coast and Mistassini quartzite from the Mistassini-Albanel Lakes region of south-central Quebec, are found on prehistoric sites across the eastern subarctic. Archaeological surveys in part of the Labrador Trough region of north-central Quebec during the summer of 1984 and 1985 revealed additional source localities for some of the fine-grained cherts found on interior prehistoric sites (Denton and McCaffrey 1985; McCaffrey n.d.).

The archaeological survey work described below is part of a long-term project to identify and characterize lithic source localities in the interior eastern subarctic. This is seen as a first step towards exploring lithic raw material distributions both spatially and chronologically, in order to examine the role of mobility and exchange in subarctic adaptive strategies. Also, this project is designed to begin compensating for the emphasis on coastal research that has characterized Labrador archaeology to date.

PAST RESEARCH IN THE REGION

Interior Labrador has received as yet little archaeological attention. Surveys were conducted in the region of Michikamau Lake prior to the flooding of the Churchill reservoir (MacLeod 1967, 1968); however, weather and logistical problems prevented the recovery of much data. Brief reconnaissance projects linked to the construction of the Trans-Labrador Highway also failed to recover much evidence of prehistoric occupation (Penney 1986; Thomson 1984, 1985).

The situation in subarctic Quebec is different in that recent hydroelectric projects were preceeded by a decade of archaeological survey work and excavation. Ongoing analyses of prehistoric sites from across the Quebec subarctic zone have led to a preliminary culture-history of the region.

Although Archaic period sites have been found at Lac de la Hutte Sauvage (Samson 1978, 1981) and on the Middle and Lower North Shore (Archeotec 1983; Chevrier 1977, 1978; Jean-Yves Pintal, pers. comm.), early sites in the far interior are still few in number. Those which have been discovered date to ca. 3500-3000 B.P. This time period is followed by a stretch of about 2000 to 1500 years that sees evidence of fairly continuous occupation in some zones, such as Caniapiscau, and lighter or sporadic occupation in other interior regions to the west (Denton 1985). It is possible, however, that difficulty in locating sites and the frequent lack of datable organic remains have coloured our perception of this period. By about 1500 B.P., dated sites from across the Quebec subarctic attest to the increasingly widespread, intensive and continuous use of this territory (Denton 1985; Seguin 1985).

Analyses of prehistoric artifact collections from this region noted patterning in the varieties of lithic raw materials present on sites (Denton et al. 1984). This factor suggested that an attempt to identify and to characterize lithic sources could contribute greatly to our understanding of interior subarctic prehistory.

ARCHAEOLOGY IN THE LABRADOR TROUGH

The Labrador trough, or geosyncline, is a folded belt of Precambrian sedimentary, volcanic and metamorphic rocks. It is up to 95 km wide in places and extends southeast for 1100 km from Ungava Bay through northeastern Quebec and western Labrador, to within 300 km of the St. Lawrence River (Figure 1). The iron ranges along the western and central parts of the Labrador geosyncline form one of the major sedimentary iron belts of the world. The early Proterozoic rocks of the Labrador Trough include a number of chert-bearing formations (Dimroth 1978; Gross 1968).

Evidence that one of these formations was exploited in prehistoric times was acquired during a brief archaeological survey in the summer of 1984 (Denton and McCaffrey 1985). Workshop sites and quarry localities were found near Schefferville, in association with the Fleming chert formation (Figure 2). Fleming chert is a fine-grained, homogeneous material that ranges in colour from light to dark grey, green, and tan. The different colour varieties can co-occur in hand samples.

Although few diagnostic tools were recovered from these sites, one workshop locality (GfDs-1) was tentatively affiliated with the Intermediate Indian period (ca. 3500-2500 B.P.), based on the morphology of a "curated tool kit" that had been discarded at the site.

The following summer, further research north of Schefferville provided additional evidence of the prehistoric use of Fleming chert, in the form of a small habitation site with a hearth. Though the site contained large numbers of flakes attesting to a range of knapping activities, few formal tools and no organic materials were recovered (McCaffrey n.d.).

The 1986 field season was geared toward exploring chert-bearing localities on prominent waterways south of Schefferville. These included the Fleming formation, along with a number of previously unexamined chert-bearing strata: in particular, the Sokoman, Ruth and Wishart formations. The survey was conducted in four stages, using the McGill Subarctic Research Station in Schefferville as a base of operations (Figure 2).

SURVEY RESULTS

1. Petitsikapau Lake

The first part of the survey was a boat trip to the site of Fort Nascopie, a long-abandoned Hudson's Bay Company post located approximately 20 km southeast of Schefferville. Though this visit deviated somewhat from the primary goal of my research, I thought it might be a useful starting point for documenting Montagnais-Naskapi land use in the region, and I also wanted to determine the area's potential for prehistoric occupation.

Fort Nascopie represented the culmination of the Hudson's Bay Company's efforts to exploit fur resources in the far interior by engaging the northern caribou hunters, the Naskapi, in the fur trade. The steps leading up to the H.B.C.'s decision to pursue this route have been described by a number of researchers (Cooke 1964, 1979; Davies and Johnson 1963; Mattox 1964); therefore, I include only a brief summary.

In 1830, a canoe brigade headed by Nicol Finlayson left Moose Factory, to build Fort Chimo on the Koksoak River about 30 km above its mouth (Cooke 1979: 99). The establishment of fur trading posts in the far interior of Quebec-Labrador was an expensive undertaking. However, furs (especially martens) traded by the Naskapi during the early days of Fort Chimo brought very high prices at auction in London, suggesting that the venture could prove extremely profitable (Cooke 1979: 101; Davies and Johnson 1963: lxxi). Consequently, Erland Erlandson was sent overland from Fort Chimo to Mingan both to look for good fur country in the interior, and to explore travel routes. He singled out Petitsikapau Lake as the best spot for an inland post, for two reasons: the land around Petitsikapau lake was flat and densely forested, factors that indicated a prime habitat for fur-bearers; and this lake was known as the locality where the northern Indians separated on their way to different posts on the Gulf of St. Lawrence (Davies and Johnson 1963: 240, 257-258).

Therefore, in 1838 John McLean (Finlayson's successor) sent Erlandson with a party of men to establish Fort Nascopie (Cooke 1979: 101). Problems finding a supply route to the post kept it from operating until 1842, when the H.B.C. accepted McLean's suggestion to use a supply route he had explored from Hamilton Inlet (Mattox 1963: 7). Subsequently, Fort Chimo was closed. The Naskapi were then "attached" to the post on Petitsikapau Lake.

The journals from Fort Nascopie abound in descriptions of the misery and privation caused by the maintenance of this interior post. Communications, first with Fort Chimo then via North West River required arduous undertakings that were at times impossible. As a result, tremendous problems were encountered both taking out furs and bringing in supplies and trade goods. The chronic shortage of bark, canoes and manpower aggravated this situation. Finally, hunger and starvation were commonplace even in the best of years, and took a heavy toll among the Native population (Cooke 1979). Post journals state that fish fluctuated dramatically in number, forcing post employees and Natives to travel extensive distances in search of better-stocked lakes. Furbearers were also subject to cyclical declines, and caribou never appear to have frequented the area in large numbers.

To make matters worse as far as the H.B.C. was concerned, the Naskapi, to a certain degree, maintained the lifestyle that had frustrated traders at Fort Chimo — eschewing fur trapping for caribou hunting, and visiting posts on the North Shore, at North West River, and in regions located further west. At times, Indians attached to these coastal posts reciprocated the visits.

In consideration of these problems and after numerous periods of temporary shut-down, the H.B.C. finally decided to close Fort Nascopie in about 1870. They had reopened Fort Chimo in the meantime (Mattox 1964: 13).

GeDp-1 (Fort Nascopie)

The site of Fort Nascopie can be reached from Schefferville by a five-hour truck and boat ride. Our visit was facilitated by directions and aerial photographs contained in Mattox's 1964 report.

The geologist A.P. Low, who stopped at the abandoned post during the summer of 1894, wrote one of the only surviving descriptions of Fort Nascopie:

> ...The ruins of Fort Nascaupee stand in a small clearing, close to the shore of the lake, and only a short distance above the high-water mark. The houses were built of small, squared logs, with board roofs. When visited, the dwelling-house was in a fair state of repair, with the window sashes and some of the glass still in place. The doors and movables inside had been broken up and used for firewood by Indians; the roof was nearly unbroken, and leaked in only a few places. This building is about twelve by eighteen feet, and has a low room under the attic roof above. Adjoining the main building on each side are two smaller buildings, evidently used for a kitchen and a store; the roofs of both have fallen in. Traces about twenty yards to the east of these ruins, probably represent the remains of some out-buildings. About fifty yards behind, the powder

> house covered with earth was seen, with broken roof and partly filled up with earth. Adjoining this is a small burying place with a large wooden cross in its centre but without any marks on the graves, which are probably those of Indians. In the attic a fragment of "The Albion", of March 7th, 1846, was found. Close to the house were several patches of rhubarb eighteen inches high, while a number of introduced plants still flourished in the door-yard. (Low 1896: 154)

Water levels on Petitsikapau lake fluctuate a great deal, especially since the creation of the Smallwood reservoir. During our visit, the water level was particularly low, and a cobble beach about 14 m in width fronted the site. On the beach, below a thick tangle of dead alders and driftwood, lay an assortment of early 19th century artifacts (Figure 3).

Some 100 artifacts were mapped and surface-collected from the beach. They consist primarily of nails and sundry iron scraps and fragments. Also found were ceramic and glass sherds, kaolin pipe stems, gun-parts, a tin condiment jar lid, kettle fragments, an iron and brass padlock, a folding knife and tools such as files and chisels (Figure 4).

At the inner edge of the beach stood a wall of 2 to 3 m high alders, about 13 m deep. A passageway led through the middle of this brush to five large clearings. No house walls could be detected. The rhubarb and wild raspberry described by Low have continued to flourish. Located well behind the clearings was a small rectangular depression, probably the remains of the powder house. No Native encampments were found in the vicinity of the post.

After mapping the site, we crossed the lake and surveyed the arm of land near the rapids. The post journals refer frequently to this spot as a locality where Native groups would camp and fish while visiting the post. In a brutal testimony to the low visibility of subarctic sites, our tests and walkover of the rocky terrain failed to produce any evidence of occupation. In fact, the only sign of a Native presence in the area was located to the south of the post, where we found two recent Native camps that had been built on high land well back from the water (Figure 5).

On our return trip to Schefferville, we investigated a portage route shown on a map made by the Oblate missionary, Pere Babel, who travelled to Petitsikapau Lake in 1867 and 1868 (Carriere 1969; Tremblay 1977). Approaching the location from the southern side, we found a blazed tree marking the start of a cleared passageway across this neck of land (Figure 5). The portage did not show signs of recent maintenance, but was certainly continued to be used since the turn of the century. It may now be maintained as a snowmobile route. Again our tests failed to produce evidence of prehistoric or Historic period occupation, as did spot surveys carried out on the return trip to Schefferville.

2. **Astray Lake**

Following a brief stay in Schefferville to reprovision, we set out for Astray lake. The lake was aptly named by A.P. Low in the course of his geological surveys at the turn of the century. It consists of a maze of waterways, separated by many peninsulas and a jumble of small and large islands. I had already visited one locality in the southern part of Astray Lake during the summer of 1985, thanks to a fortuitous plane ride provided by two Labrador Mining Company geologists based in Schefferville. While they worked in a neighbouring locality, we tracked inland to examine chert deposits indicated on their very detailed maps.

The Fleming chert formation we eventually encountered consisted of extensive rows of large, elongated boulders of massive, homogeneous grey chert. In general, the boulders were very rounded by glacial action, though some had been split and cracked by erosion. An extremely thick bed of moss clung to the base of the boulders making it impossible, given time constraints, to identify chipping debris or other cultural material.

On our way back to the shore for our rendezvous with the plane, we stepped into a small clearing about 1000 metres from the shoreline, and approximately 300 metres northeast of a small body of water called Fryer lake on geology maps (Figure 6). Here we saw large flakes poking through a bare patch in the caribou moss covering the forest floor. There was little time left to do anything but record the site and flag the area in hope of returning.

GcDo-1 (Fryer Lake Site)

We revisited the Fryer Lake site in 1986. Our excavation revealed a small oval-shaped concentration of 252 flakes, primarily biface reduction flakes, covering about two square metres - probably the result of a brief knapping episode by one individual. In the centre of the cluster we recovered two edge fragments from bifacial preforms. The exclusive raw material found on the site was the very fine-grained grey and green Fleming chert that outcrops nearby. Although most of the cultural material was contained in the thin organic layer below the moss, a young spruce tree was growing in the center of the site and many flakes had followed its root network into deeper soil horizons. A number of rocks were found within the excavation units; however, there was no charcoal and no evidence of thermal alteration to suggest the presence of a hearth.

The Fryer Lake site, though limited in size and interpretive potential, nevertheless provides some valuable data on a prehistoric presence in the region of Astray lake. It confirms that the Fleming chert deposits were visited in prehistoric times. Also, it provides a rare opportunity to document a site location in an interior zone, far from water.

Further surveys in the region of Astray lake did not lead to the discovery of additional prehistoric sites; however, three recent Montagnais-Naskapi camps were noted (Figure 6). Two of these, recorded in the course of the 1985 visit, were small campsites indicated only by a slight change in vegetation and rotting stove stakes. One was located near a small stream close to the shore of Fryer Lake. The second was on high land facing Astray Lake. We also located a recent site in the dense brush, below the terrace on which we camped in 1986. The terrace itself had many signs of brief occupation in the form of stone hearth rings and cut trees, but no evidence of a prehistoric presence.

3. **Menihek Lake**

The third part of my survey took place directly south of Schefferville, on Menihek Lake. This body of water is, in fact, comprised of three elongated, connecting lakes flowing north out of the Ashuanipi River, and draining to the east through Astray and Petitsikapau Lake, to eventually join the Hamilton River. Consequently, Menihek Lake forms part of the very important travel route from the North Shore, via the Moisie River, to Lake Michikamau (now Smallwood Reservoir). In 1924 Speck and Eisley (1942) recorded the following travel narrative from chief Sylvestre Mackenzie concerning the movements of a group identified as "the Michikamau Indians".

> Punctually on August 1st the band leaves "salt water" (Seven Islands) ascending Moisie River, passing through Kaopasho Lake and then across the Height of Land, reaching Menihek Lake by about October 5th. Here they camp to fish and hunt for a few days. Thence they move along by easy stages to Michikaumau, hunting and fishing and reaching their destination at Michikamau by the end of October. From here they plan to separate into family groups for a season of trapping to accumulate fur...About the end of March or the commencement of April the entire "gang" (a traders' term) comes together again at the customary rendezvous on Menihek Lake. Here an extensive encampment of tented families soon congregates as it has for many generations -- incidentally a promising place for stratigraphic archaeological work when an opportunity is afforded. From then until the commencement of May the convening of hunters and their families goes on and the horde prepares to descend to the coast with the harvest of fur. Early in May the flotilla gets under way moving southward over the Height of Land, through Ashuanipi Lake and down the Moisie River, arriving at the Moisie Post almost punctually on the 25th of June. The completes the cycle of the annual migration from interior to coast. It should be noted that some families as well as individuals, who for various reasons are unable to undertake the trek, remain at the Menihek gathering place over the summer until the return trip of the southbound flotilla is due the first week of October. They subsist chiefly upon fish. A few, we are told, may refrain from the coast migration for many years, some never going down (Speck and Eisley 1942: 234-235).

A visitor to the Menihek region cannot help but be impressed by the grandeur of the lakes. Although the eastern shore is generally low and swampy, and now supports the railway track from Sept-Iles to Schefferville, the western shore is a series of high, drift terraces and long sand beaches. Parts of the region are densely forested with black spruce, interspersed with much smaller stands of larch, balsam, and birch.

In 1953, a dam was built at the outlet of Menihek Lake in order to supply electricity to the then prospering mining town of Schefferville. Much to the detriment of Menihek's prehistoric record, the dam construction resulted in an appreciable increase in the lake's water level. At the time of my survey, water levels were again low, though not yet at their natural level, due to the decreased power needs of Schefferville since mining operations shut down.

We launched our boat close to the dam, and proceeded straight across the outlet in a southwesterly direction, landing on a wide sand beach on the western shore (Figure 2). Evidence of flooding could be seen everywhere, in the overturned trees, dead alders, and heavily eroded shorelines. No sign of prehistoric occupation was found along the shore of this northern bay, although recent Montagnais-Naskapi camps were numerous along the northern half of the bay. Most campsites appeared to date from within the last fifty years.

We continued boating south, taking advantage of a spate of excellent weather in order to reach our southern destination of Esker Point. Just over half way from the dam to the junction of the McPhadyen River we found a prehistoric site, or rather what remained of a site.

GbDp-1 (Menihek Beach Site)

We had stopped to test a sand terrace on the northern side of the outlet of a small tributary. Two recent (within the last few decades) Native camps stood just behind the eroding sand bank above the beach. Little remained of the camps except rotting tent poles and stove stakes. Although test pits along the length of this sand terrace revealed no prehistoric material, we found a thin scatter of flakes at the water's edge in a small bay to the west of the recent camps.

The artifacts were contained within a three metre wide band that stretched in a semi-circle around the entire length of the bay - about 90 m. Approximately 50 small flakes of grey, green and black chert, and speckled and striated grey silicious shale were collected. All the flakes have rounded edges from water tumbling and wind erosion. Included in the collection was one small endscraper and a number of large core fragments.

Apparently, the site had been destroyed by the rise in water level and the accompanying damage caused by wave erosion and winter ice push. There was no sign of hearths or other structures. At the westernmost edge of the site, unaltered blocks of chert and silicious shale lay strewn along the beach, attesting to the presence of nearby chert formations.

GaDp-1 (McPhadyen Waltz Site)

Upon reaching the junction of the McPhadyen River, we located more elaborate evidence of a prehistoric presence in the region. The first site we investigated was located just to the north of the McPhadyen River, on a small bay sheltered from the predominant north and north-west winds. Lithic material was found scattered along approximately 125 m of the pebble beach. The site appears to have been a chert-working station; however, erosion caused by waves and ice had taken a toll, as all flakes were heavily water-rolled. In fact, the artifacts tended to lie along 3 successive ridges of sand and gravel, probably marking water levels during a previous summer storm. Some artifacts were in the shallows. No features were noted.

The 400 lithic artifacts that make up the surface collection consist of large primary reduction flakes and core fragments, along with a smaller number of biface reduction flakes. The finished tools consist of 10 small bifaces. Of these, 4 specimens are complete and have rounded bases. Three larger bifacial fragments along with some modified flakes were also recovered (Figure 7). The lithic raw materials are the same light to dark grey and green cherts found on the Menihek Beach site (GbDp-1).

A series of test pits in the low, bushy ground behind the pebble beach proved negative, with the exception of the discovery of an old Native campsite barely visible in the brush. Its existence was signalled only by the presence of a tin can on the surface and a button in one of our test pits.

Next we surveyed the high esker on the northern side of the McPhadyen River outlet, overlooking the rapids. Three recent camps were noted, 2 of which may be linked to geological exploration. Tests did not reveal the presence of prehistoric sites.

GaDp-2 (McPhadyen South Bank Site)

We then crossed the McPhadyen River to the southern shore and examined the point of land at the junction of the river and Menihek Lake. The cobble and sand beach was very eroded from higher water levels. Many trees along the shoreline had been pushed over and jammed into the bank at the edge of the forest. Lithic artifacts and debris covered sections of the shore from the rapids of the McPhadyen River to the junction of a small brook south of the river's outlet. The greatest concentration of material lay on the point (herein called Flagpoint) and extended to the brook, a distance of approximately 250-300 m (Figure 8). This locality was designated as GaDp-2. Other lithic concentrations located closer to the rapids are described below as separate sites.

In contrast to the prehistoric sites previously described on Menihek lake, GaDp-2 was significantly different in a number of ways. First, the lithic artifacts on the beach appeared less disturbed than those on other sites. For example, some well-defined zones where individual flaking episodes had taken place could be discerned by clusters of chert blocks and associated debitage. In general, the artifacts and flakes did not appear to have been water-rolled or otherwise modified by post-depositional processes. Finally, 7 test pits dug in the dense brush back from the shore all produced flakes, attesting to the presence of intact sub-surface cultural remains covering at least 300 m^2 of the terrace. As a result, only a small surface collection of flakes and artifacts lying on the beach was made and the site was slated for further research the following summer.

The surface collection contains a number of finished tools, such as 3 small biface bases of dark grey chert, and a larger biface fragment with contracting sides and straight base, manufactured of dark grey and green chert. Also, an intriguing bifacial fragment of maroon, fine-grained quartzite (thought to be a local raw material) was collected. The specimen appears to be a large stem, although only slight evidence for shoulders is present on the fragment. Numerous other bifacial fragments, cores, and retouched flakes complete the tool sample (Figure 9).

The 200 flakes recovered represent the entire range of lithic reduction from primary to fine-retouch. A wide range of raw materials is apparent, including many shades of grey to green chert, translucent and mottled grey flakes, plus one flake of jasper. All are local raw materials.

GaDp-3 (McPhadyen Preform Site)

Three additional prehistoric sites were recorded along the shoreline between Flagpoint and the rapids. The first of these was situated about 50 m west of the South Bank site. Lithic material was found scattered over an area of approximately three square metres, almost entirely in the shallows of the river. Test pits on land above the site proved negative.

Six large core-biface preforms and numerous biface preform fragments were recovered, along with about 80 flakes, ranging from primary reduction to fine biface reduction flakes (Figure 10). Four bifacial fragments were from finely crafted specimens that must have been close to completion when they fractured and were discarded. Also recovered was a small oblong biface manufactured of a very coarse grey and black quartzite. The raw material used at the site was local grey and green chert. The site had apparently been a small knapping station where large blocks of chert were flaked into preforms.

GaDp-4 (McPhadyen Toss Site)

Approximately 200 m further west along the shore another concentration of lithic debris was encountered. Once again flakes, approximately 200, of grey and green chert covered about 20 m^2 of the beach and shallows. Testing along the bank revealed no intact cultural remains.

The flakes are large, resulting from primary core reduction, but a number of small biface reduction flakes suggests that a finer level of knapping was also conducted at this site. Also recovered was a large, humpbacked endscraper of extremely homogenous, fine-grained brown chert (Figure 9). This chert is unique both in colour and texture, and may not have originated within the Labrador Trough. A biface preform with a rounded base and two bifacially retouched flakes complete the collection.

GaDp-5 (McPhadyen Outcrop Site)

Finally, a brief visit to a small bay just before the rapids resulted in the discovery of five small grey chert flakes lying on the eroding shoreline. Lack of time prevented a more thorough investigation of this locale. Of particular interest, however, was the large outcrop located just to the west of the site, facing the rapids. Here we found the source of some if not all the chert contained on the nearby sites. The chert-bearing formation within the outcrop was currently at water-level, but once probably had been more accessible. The rise in water level had submerged whatever evidence of a talus or other debris that may once have existed.

4. Esker Point on Menihek Lake

We reluctantly left the sites at the junction of the McPhadyen River in order to reach Esker Point, about 25 km further south, while the good weather lasted. It quickly became apparent that damage caused by flooding was much greater in this region than had been the case further north. Shorelines were obliterated by high water, and in many places the combination of high water level and dense spruce forest made it virtually impossible to land the boat. Although Esker Point sounds like a promising location for sites, the construction of a landing strip on the esker during the 1950s completely altered the landscape.

A trip further south to the outlet of the Tamarack River proved very interesting for documenting recent land-use in the region (Figure 2). On high, sandy terrain on the north shore of the Tamarack River, just back from the railroad tracks, we found the remains of many Montagnais camps dating to within the last few decades. A statue of St. Joseph had been erected nearby, with a plaque proclaiming the importance of the Tamarack River site as a meeting place for Montagnais groups from Matimekosh near Schefferville, and those from Sept-Iles and other parts of the North Shore.

Despite a careful search of the sand blowouts on which the recent camps were built, no prehistoric remains were located. It seems likely, however, that had prehistoric groups once occupied the same region, they might have built their camps closer to the lake in an area now greatly disturbed by the construction of the rail line and a culvert through which the Tamarack River drains.

On leaving this site, we were finally avenged for the unusually warm, sunny and calm weather that had accompanied us since the onset of the project. The next 4 days were spent holding down our tents and eating Lipton's Cup-a-Soup on a tiny sandpit in Livingston Bay while a bad storm blew itself out, at which point time (and food!) constraints forced us to boat straight back to Schefferville.

GcDs-1 (Menihek Inland Site)

Upon returning from the field, I received a letter (redirected by Dr. William Fitzhugh) from Dr. John Percival of the Geological Survey of Canada. Percival found a large square-based biface of grey-green chert at a locality 23 km inland from the northern end of Menihek Lake, and about 8 km west of Point Lake, which connects to Menihek by a small river dotted with rapids (Figure 9). Percival was conducting a geological reconnaissance and mapping project at the time. He described the find as follows:

> The artifact was found on a flat outcrop area with a thin veneer of gravel-sized overburden, surrounded by moss-covered ground. The outcrop is at the crest of a low, barren hill. To the north and the west are treed, swampy valleys...I had a quick look around the site but saw nothing else to suggest human presence (John Percival, pers. comm.).

DISCUSSION

The surveys described over the last few pages have provided the first substantial evidence of prehistoric occupation in interior Labrador, though it should be reiterated that sites are well-documented for nearby regions in interior Quebec, such as Caniapiscau and Lac de la Hutte Sauvage. Although water level variations and the concomitant effects of erosion have greatly damaged the archaeological record of Menihek Lake, enough material was recovered to begin elaborating a tentative culture-history of the region.

Datable organic material was not recovered from any of the sites; however, some artifacts in the surface collections show affinities to certain cultural and chronological periods documented in nearby regions. For example, the red quartzite fragment found on the beach at the McPhadyen South Bank site (GaDp-2: 3), if correctly identified as a stem, might relate to a late Archaic time period. Large stemmed bifaces have been found in the Moisie region of the Quebec North Shore. These collections remain undated; however, Chevrier (1977) has suggested an Archaic period affiliation for the sites with stemmed forms. The red quartzite stem has no specific parallels in Labrador coast collections though, in gross morphology it may be compared to some Maritime Archaic specimens.

Many of the artifacts recovered from the Menihek Lake sites resemble forms found on Intermediate Period Indian sites on the Labrador coast (Fitzhugh 1972; Nagle 1978). Examples are the large humpbacked scraper from the McPhadyen Toss site (GaDp-4: 3), and the range of biface styles recovered from many of the sites -- such as contracting, straight-based specimens, lanceolate forms and the small, convex-based bifaces or projectile preforms. If this tenuous link with the Intermediate Period proves to be well-founded, some of the Menihek sites may date within the time range of 3500 to 2500 B.P.

Until further research, including excavation, is conducted in the region, these suggestions concerning the age of the sites must remain speculative. It is worthwhile to note, however, that previously analyzed collections from the Schefferville region also were thought to date to an Intermediate Indian time period (Denton and McCaffrey 1985).

The sites located in western Labrador provide ample evidence of the exploitation of a number of different chert formations in the Labrador Trough. At the Fryer Lake site (GcDo-1) on Astray Lake, documentation for the prehistoric use of grey-green Fleming chert was acquired. The sites on Menihek Lake included some Fleming chert, but contained mainly multicoloured cherts and silicious shales from the Sokoman, Ruth and Wishart formations. Geological maps and descriptions indicate that these formations form a north-south band along the western side of the lake. The jasper and maroon quartzite are almost certainly local materials, though they have not yet been pinpointed to a specific formation.

No "non-local" raw materials were recovered on the sites. In fact, most of the sites appear to have been chert-working stations where blocks of raw material collected either on the beach or from nearby outcrops were turned into bifacial preforms, or used as cores to produce large flakes. The McPhadyen Preform site (GaDp-3), in particular, documents quite well the manufacture of large bifaces which could be transported from this location to be used eventually both as tools in and of themselves, and as cores for a ready supply of usable flakes. Analyses of sites in the Caniapiscau region have shown that this practice was an effective means of ensuring a highly portable and economic raw material supply (McCaffrey 1983).

An exception to the identification of sites as related mainly to chert exploitation occurs with the McPhadyen South Bank site (GaDp-2). Clearly, the location, size and appearance of the site suggest that this area was was revisited by many groups and potentially occupied for relatively long periods of time. The previously quoted travel account recorded by Speck and Eiseley (1942) strengthens this assumption. Also, at the junction of Menihek Lake and the McPhadyen River are to be found both high quality lithic materials and virtually all faunal resources known to be exploited by subarctic hunters. Fish, in particular, abound - lake trout and pike in Menihek Lake, ouananiche (landlocked salmon) in the McPhadyen rapids, and brook trout in the small stream at the northern extremity of the site. Caribou, bear, and a variety of waterfowl and small furbearers are also currently found in the region (Harper 1961; personal observation; reports by Natives and White occupants of Schefferville).

An additional way to glean information about prehistoric occupation in the Labrador Trough is to determine if cherts from the formations under study appear in archaeological sites located outside of the Trough. This research has only just begun; nevertheless, a few observations can be made on the basis of visual examinations of collections. Cherts resembling those found in the Fleming, Sokomon, Ruth and Wishart Formations occur on many sites located to the west in the Caniapiscau region; however, precise identifications of the materials, the quantities and the time range involved remain to be undertaken.

Collections from sites in the Fort McKenzie (Archeologie Ill. 1984; Desrosiers 1985) and Fort Chimo (Lee 1966) regions to the north of Schefferville consist primarily of local raw materials. These are almost certainly Labrador Trough cherts, but they may come from outcrops located farther north than Schefferville.

An examination of prehistoric collections from the Labrador coast housed at the Smithsonian Institution revealed virtually no materials that resemble the Trough cherts. In other words, despite the small but consistent appearance of Ramah chert on sites across the Quebec subarctic, Labrador Trough cherts do not appear to have travelled to the Atlantic coast. Future research will include an examination of collections from Lac de la Hutte Sauvage, the Quebec North Shore and the western Quebec subarctic in order to delimit both the spatial and chronological distribution of interior cherts.

In contrast to the amount of prehistoric data acquired during the surveys, little evidence for Historic period occupation in western Labrador was collected, despite the survey of Fort Nascopie and its environs. This is almost certainly due more to poor conservation of organic materials, and the difficulty of identifying small campsites, than to an actual lack of Historic period occupation.

Indications of contemporary Native land-use in the region abound, particularly for the period since the construction of Schefferville in the 1950s, and the establishment of the Montagnais and Naskapi communities nearby. Small campsites were noted in virtually all areas surveyed, but only the regions with large camps or clusters of camps will be discussed here.

Three localities were visited which were (and in some instances may still be) "gathering places" (Figure 2). The first was on the road leading to the dam at Menihek, about 20 km south of Schefferville. Here a number of very recent, large camps had been built just back from the road. A similar locality was identified just across from the dam, on the sandy terraces flanking a bay on Menihek Lake. Here the state of decay of the camps combined with the age of artifacts suggest the area was popular about 30 to 50 years ago. Finally, the contemporary site located at the Tamarack River has already been described.

Logistical considerations, more than any other factor, probably determined the location of these meeting places. In two of the above cases, modern transportation networks (both road and rail) facilitated travel to and from the sites.

CONCLUSION

A number of researchers have stated recently that interior Labrador may have been occupied only sporadically, not intensively utilized and may have had a high cultural replacement rate. They suggest that only with the measure of security offered by trade goods and permanent settlements did the interior see increased exploitation (Penney 1986: 67-68; Thomson 1985: 162-163).

Considering the small amount of fieldwork that actually has been carried out in interior Labrador, it may be premature to draw such conclusions. A lack of archaeological survey work and excavation in the interior should not be equated with a lack of prehistoric occupation, particularly in an area where traces of settlement may be small, dispersed, ephemeral, and unrelated to the summer landscape viewed by archaeologists.

In addition, the amount of lithic raw material from the coast (Ramah chert) and from more densely populated regions to the south (Mistassini quartzite) that cirulated in the far interior, despite the availability of high quality interior cherts, suggests the complexity of interior adaptive strategies and the existence of links between coastal and southern regions and the northern interior. Future research will be geared toward documenting and understanding the implications of these lithic procurement patterns.

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Figure 1. Places mentioned in the text.

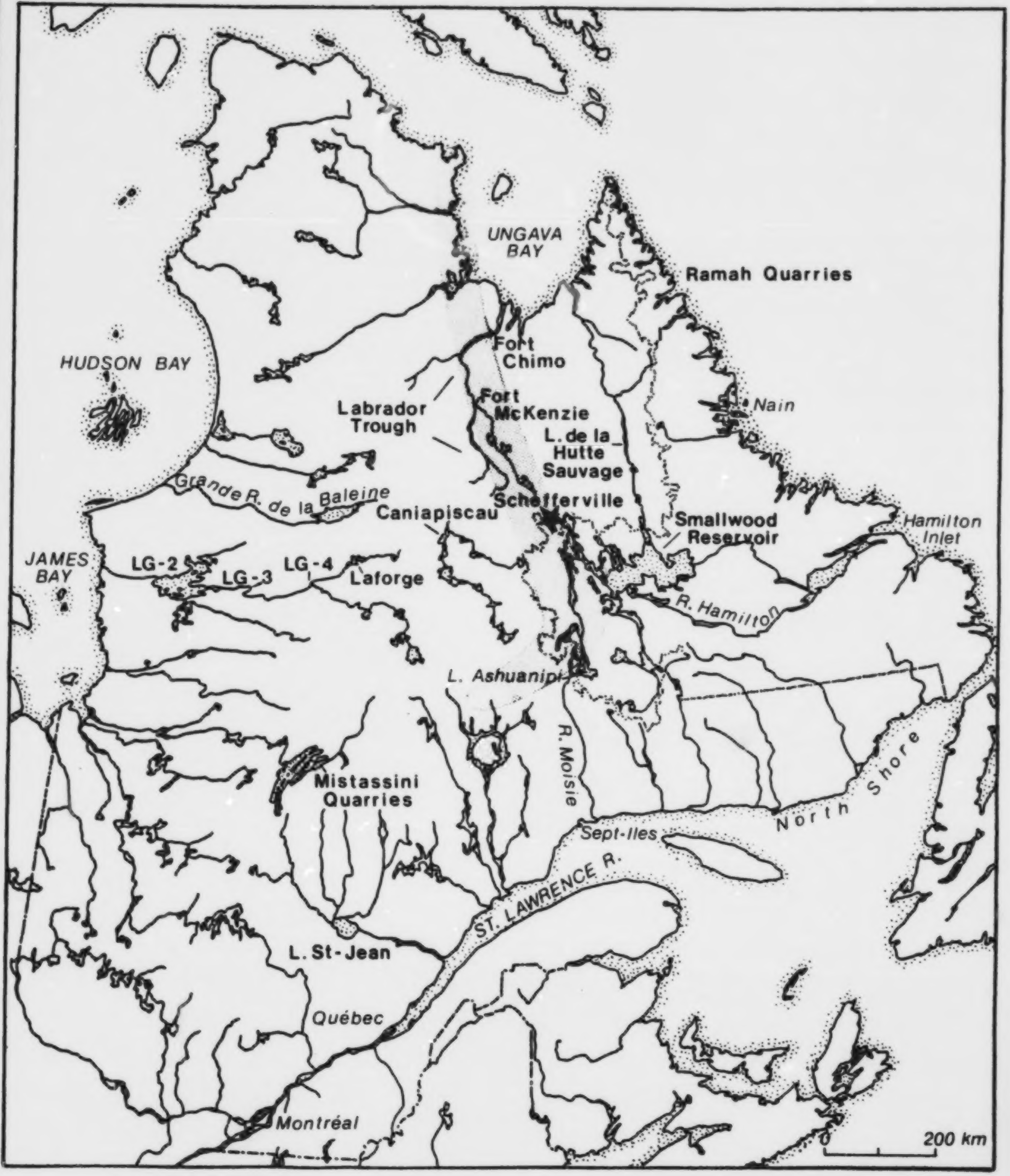

UNGAVA BAY
Ramah Quarries
HUDSON BAY
Fort Chimo
Nain
Labrador Trough
Fort McKenzie
L. de la Hutte Sauvage
Grande R. de la Baleine
Schefferville
Caniapiscau
Smallwood Reservoir
Hamilton Inlet
JAMES BAY
LG-2
LG-3
LG-4
Laforge
R. Hamilton
L. Ashuanipi
R. Moisie
Mistassini Quarries
North Shore
Sept-Iles
ST. LAWRENCE R.
L. St-Jean
Québec
Montréal
0
200 km

Figure 2. Archaeological sites in the Schefferville region. The prehistoric sites located north of Schefferville were discovered during the 1984 and 1985 field seasons.

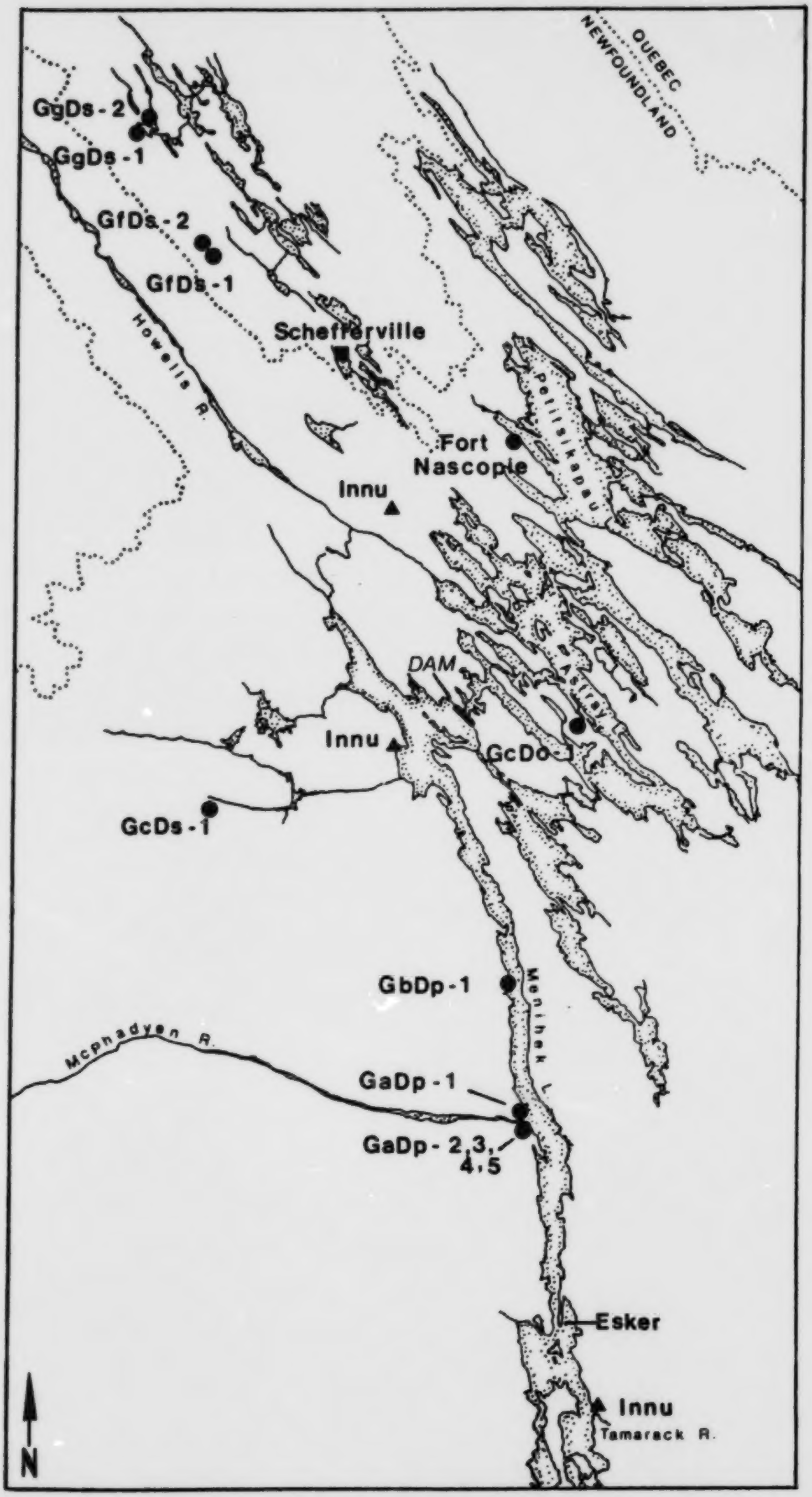
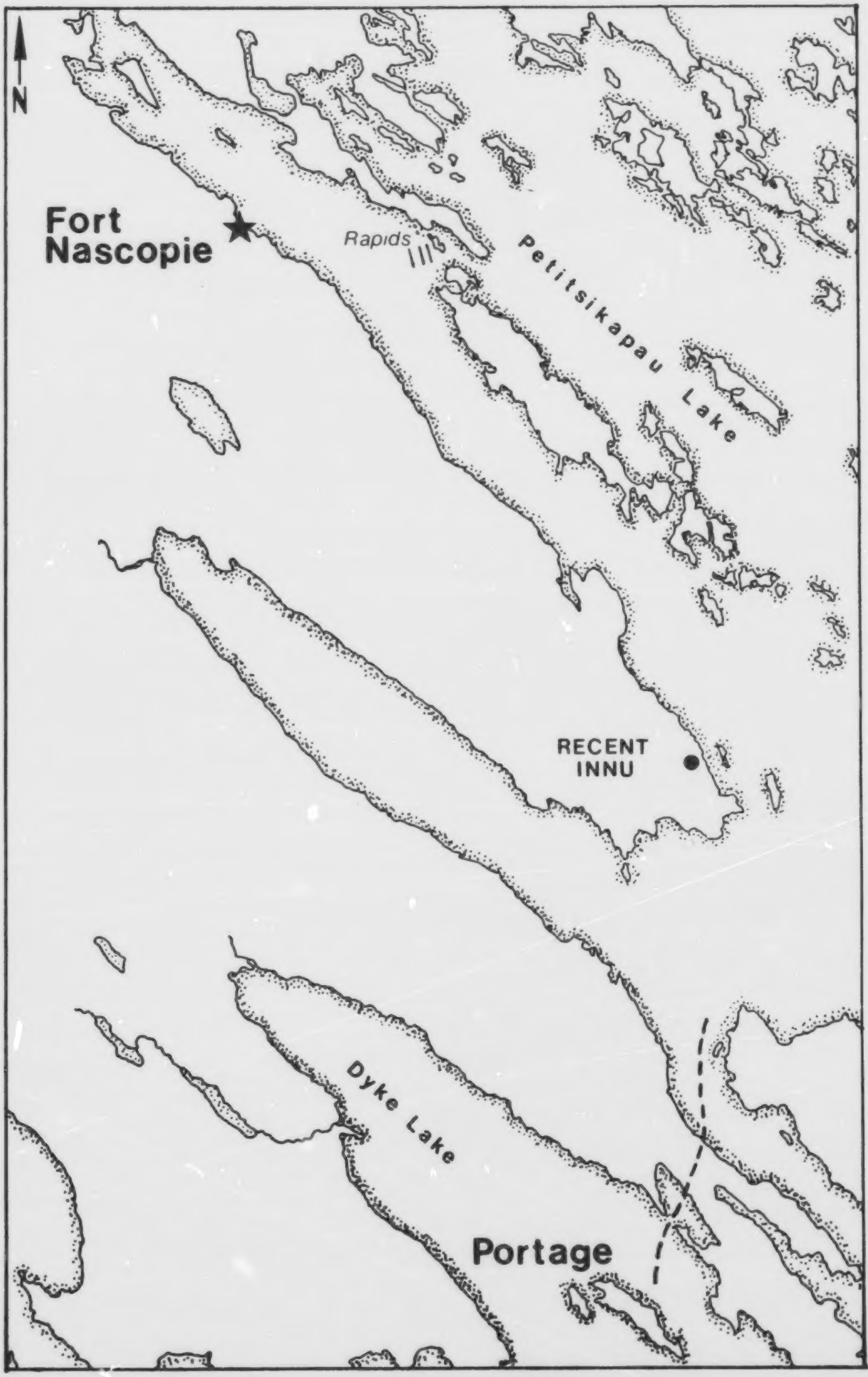

QUEBEC
NEWFOUNDLAND
GgDs - 2
GgDs - 1
GfDs - 2
GfDs - 1
Howells R.
Schefferville
Petitsikapau
Fort Nascopie
Innu
DAM
Astray
Innu
GcDo - 1
GcDs - 1
GbDp - 1
Menihek L.
Mcphadyen R.
GaDp - 1
GaDp - 2, 3, 4, 5
Esker
Innu
Tamarack R.
N
0
10
20 km

Figure 3. The site of Fort Nascopie (GeDp-1) on Petitsikapau Lake, western Labrador. The clearings where the post buildings once stood are located behind the dense growth of alders. Early 19th century artifacts were found in the shallows, on the cobble beach and under the dead alders.

Figure 4. A sample of historic period artifacts from the site of Fort Nascopie. From top to bottom these are transfer-printed whiteware ceramics, English creamware sherds, kaolin pipe stems and a bowl fragment, a copper kettle lug, and a padlock.

CM

Figure 5. Map showing the location of Fort Nascopie (GeDp-1), and the portage route used by Pere Babel, the Oblate Missionary who travelled to Petitsikapau Lake in 1867 and 1868.


N
Fort Nascopie
Rapids
Petitsikapau Lake
RECENT INNU
Dyke Lake
Portage
0 1 2 km

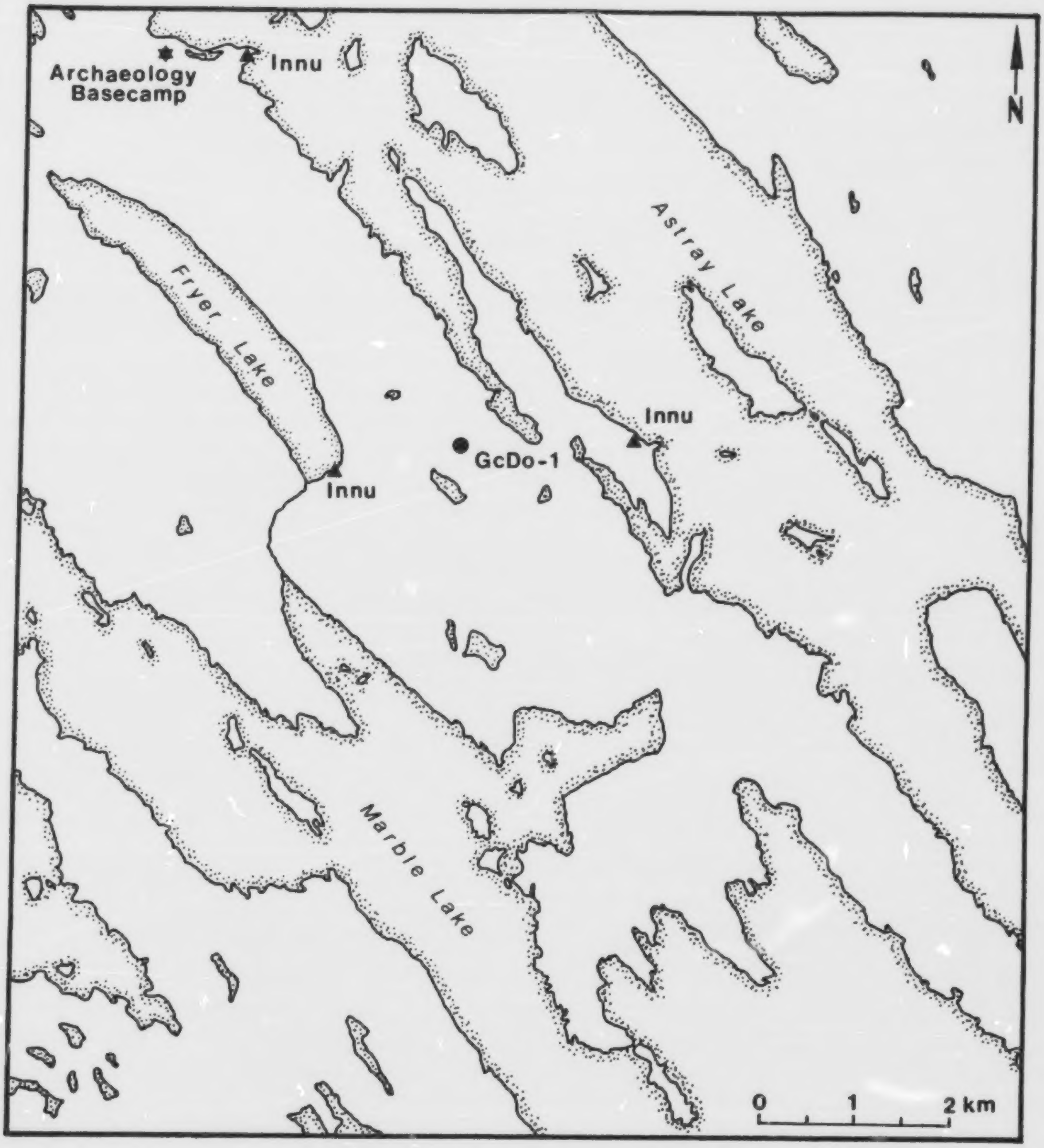

Archaeology
Basecamp
Innu
N
Fryer Lake
Astray Lake
Innu
GcDo-1
Innu
Marble Lake
0
1
2 km

Figure 6. Location of GcDo-1 (Fryer Lake site) on Astray Lake, western Labrador.

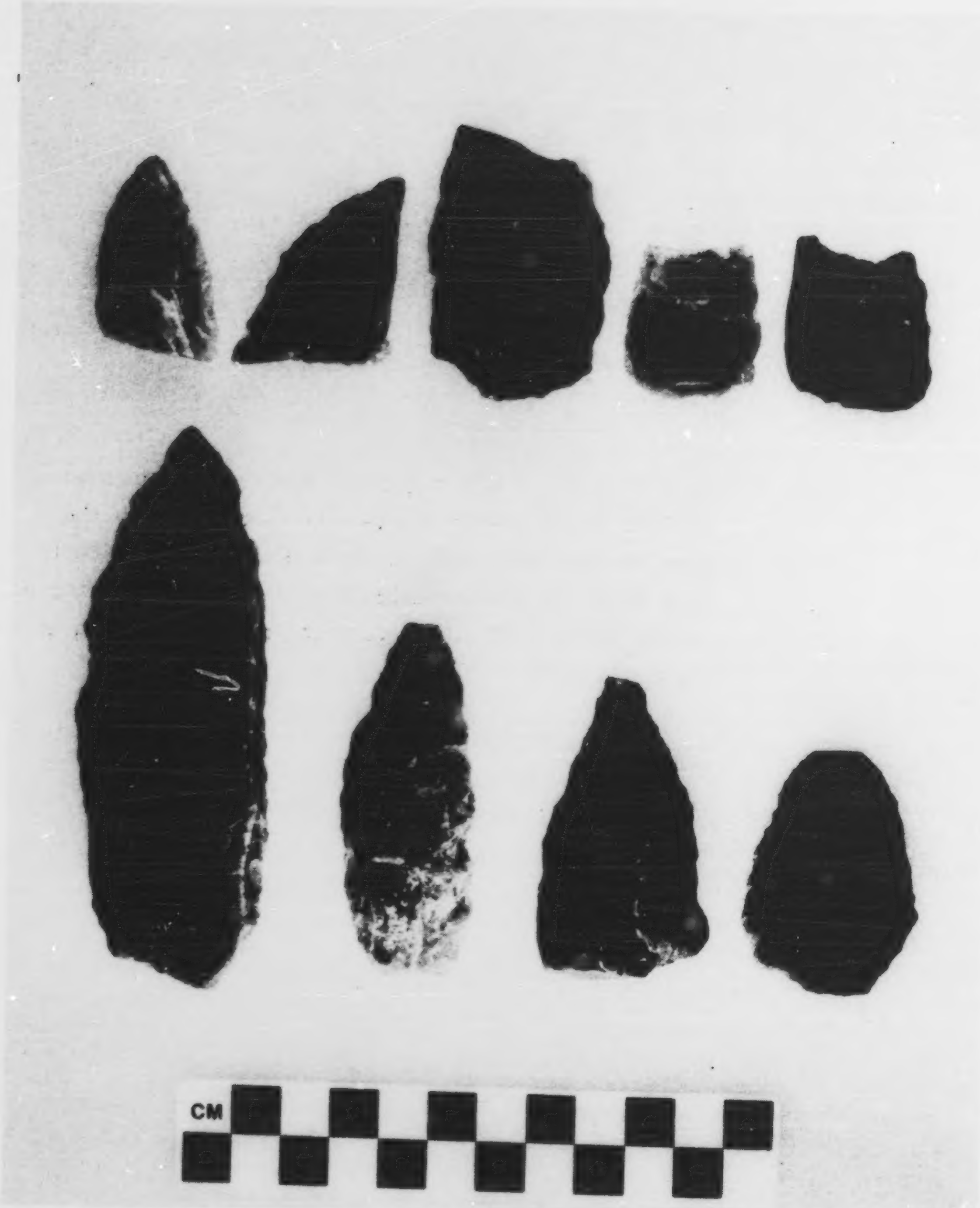


Figure 7. A sample of artifacts from GaDp-1 (McPhadyen Waltz site). The bifaces and biface fragments are all manufactured of grey and green cherts from the Sokoman-Ruth-Wishart formations in the Labrador Trough.

Figure 8. View of GaDp-2 (McPhadyen South Bank site). Finished artifacts and flaking debris were recovered from the shallows and along much of the eroded shoreline. Test excavations in the dense brush behind the shore attested to the presence of intact cultural remains covering at least 300 m^2.

Figure 9. A sample of artifacts from sites on and near Menihek Lake, western Labrador. The 5 artifacts in the top two rows were surface-collected at GaDp-2 (McPhadyen South Bank site). With two exceptions the artifacts are manufactured of dark grey and green local cherts. The bifacial fragment in the centre of the top row may be a large stem, and is manufactured of a locally-available fine-grained red quartzite. The first two artifacts in the bottom row are from GaDp-4 (McPhadyen Toss site). They are a humpbacked end-scraper of an extremely fine-grained tan chert (of unknown origin), and a biface preform fragment. The contracting, straight-based biface in the bottom right hand corner is from GcDs-1 (Menihek Inland site).

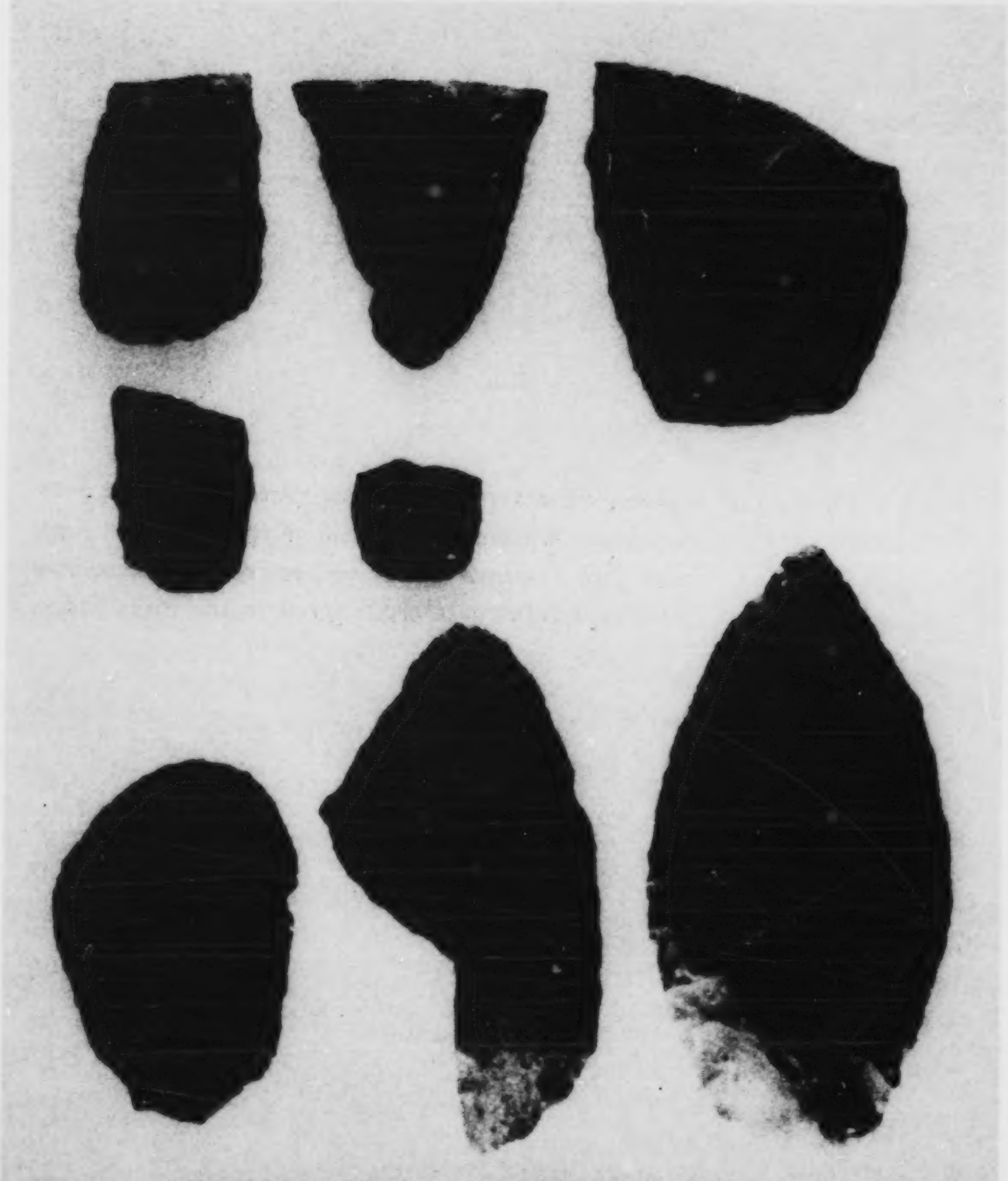

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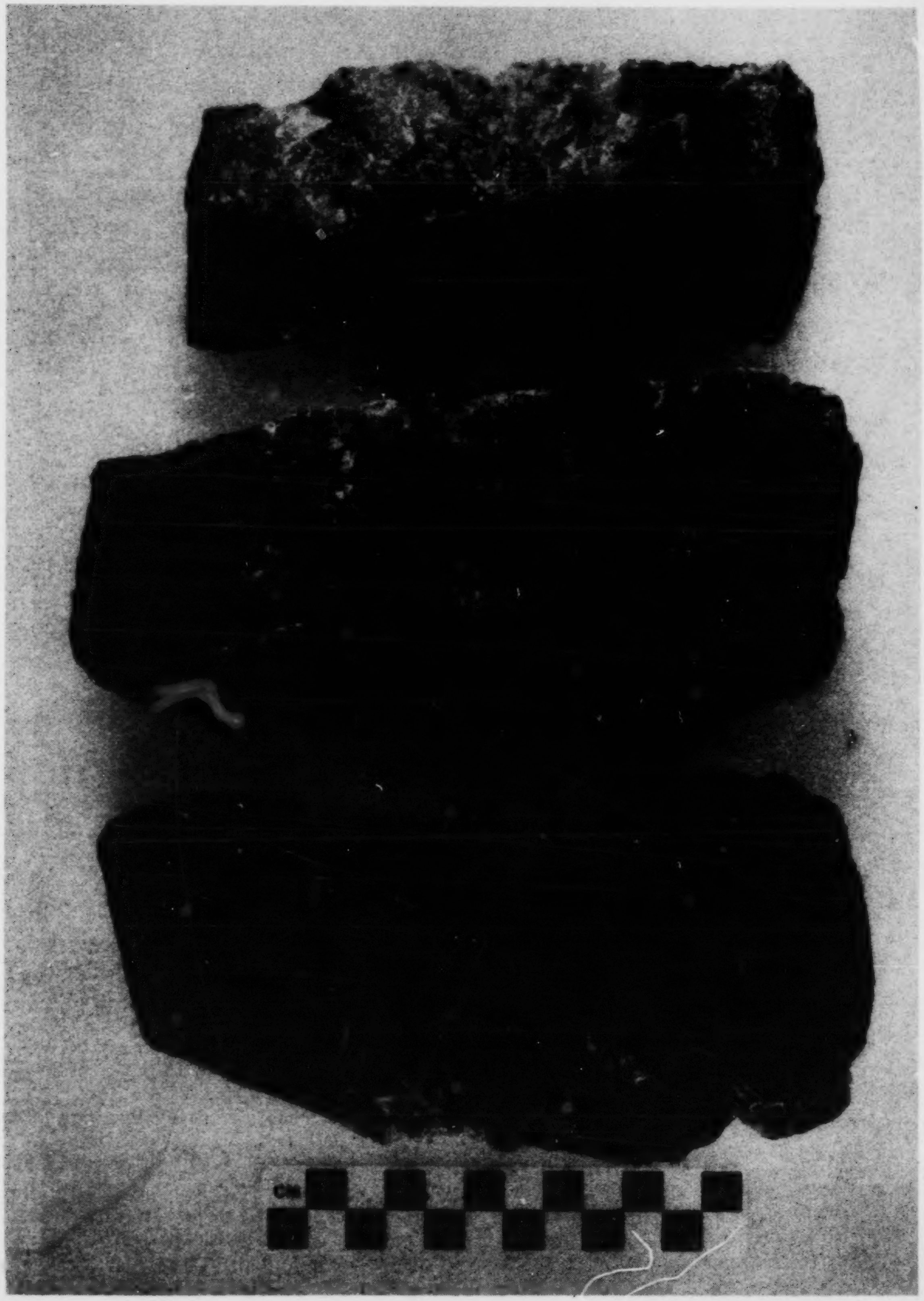
Figure 10. A sample of early-stage biface preforms from GaDp-3 (McPhadyen Preform site). Most of the specimens recovered from the site appear to have been rejected when large impurities were encountered in the chert blocks.


Cm

AN ARCHAEOLOGICAL RECONNAISSANCE OF THE SEAL LAKE REGION, INTERIOR LABRADOR

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INTRODUCTION

> Of the interior of this vast plateau little or nothing is known. The blackflies and mosquitoes form an almost impassable (sic) barrier to investigation; try it once and you will thoroughly believe it (last sentence in W.A. Stearns Labrador, 1884).
>
> No matter how little a man may add to the fund of human knowledge it's worth the doing, for it's by little bits that we've learned to know so much of our world. There's some hard work before us though, up there in those hills... (Leonidus Hubbard to Dillon Wallace on the shore of Grand Lake, 1903 [Wallace 1907:23]).

The past few years have seen considerable effort devoted to the identification and characterization of lithic material used by prehistoric groups in northern Quebec-Labrador (Allen et al. 1978, 1984; Denton and McCaffrey 1985; Denton et al. 1984; Fitzhugh 1972, 1977; Gramly 1978; Lazenby 1980, 1984; Nagle 1982, 1984, 1985). This research has been conducted for a number of reasons. First, survey results showed that many of the prehistoric Indian and Eskimo groups that occupied this vast region developed distinctive "signatures" in the raw materials they employed. In the case of sites with few diagnostic implements, the presence of these characteristic lithic materials often assists in determining cultural affiliation.

Also, lithic materials are studied in order to identify the source deposits from which they were obtained. This allows us to trace the movement of stone from its source to the location of its loss or discard. Although we must still learn *how* these movements occurred, once source locations are known an important key in reconstructing prehistoric economy, population movements, group interaction, and exchange networks becomes available.

The study of lithic resource procurement has been emphasized in the ongoing analysis of prehistoric collections from the area that now lies under the Caniapiscau reservoir in central Quebec. Surveys and excavations carried out in this region over a ten year period have produced evidence of Indian occupation beginning approximately 3500 years ago (Denton 1985; Denton et al. 1984). The rocks present in the Caniapiscau region are part of the Precambrian Shield, and do not include high quality silicious stone. Quartz and coarse-grained quartzites were available locally, however, and were used intensively for tool manufacture during most periods of occupation. Nevertheless, many sites also contained fine-grained cherts and quartzites presumed to come from distant sources.

Thus far, three source areas for these fine-grained materials have been identified on the basis of petrographic analyses (Denton et al. 1984: 7-32). They are the Ramah quarries on the northern Labrador coast (Gramly 1978; Lazenby 1980, 1984), the Mistassini quarries located on the Temiscamie River near Lakes Mistassini and Albanel (Martijn and Rogers 1969) and several extensive chert-bearing formations within the Labrador Trough (Denton and McCaffrey 1985; McCaffrey, this volume). In addition, some of the lithic materials in the Caniapiscau collections resemble "Saunders chert", the multi-coloured, dominant raw material found on sites of the Intermediate Indian period on the Labrador coast (Fitzhugh 1972; Nagle 1978).

SAUNDERS CHERT

A number of different stone types have been grouped under the general heading "Saunders chert". They are a grey banded lava, and a range of opaque fine-grained bedded cherts and felsites varying from purple to pink, lavender, green-black, and tan in colour. At times, these materials can be fairly coarse-grained, and they often contain small light-coloured inclusions (Fitzhugh 1972: 39; Nagle 1978).

Saunders chert is associated almost exclusively with the Indian cultures of the 3500-2500 BP period on the Labrador coast. Although sites with Saunders chert have been found as far north as Okak and Napartok Bays, most are concentrated in western Lake Melville (Hamilton Inlet), and in the Nain-Davis Inlet region of the central Labrador coast. These are areas that the ethnographic Naskapi Indians and presumably also Intermediate period Indians, found convenient for travelling between coast and interior, as there are a number of large river and lake systems that form ideal east-west corridors.

The lack of Saunders chert in coastally-oriented cultures like the Maritime Archaic, Pre-Dorset, Groswater, Dorset and late prehistoric Indian groups has been one of the important lines of evidence pointing toward an interior origin of this material. When the first Intermediate period sites were found in North West River, a Brinex Company geologist named Murray Piloski suggested that similar cherts (as well as native copper) could be found at Seal lake, an expansion of the Naskaupi River located 125 km northwest of North West River (Fitzhugh 1972: 72-77).

RESEARCH OBJECTIVES

Prior to the summer's investigation there had been few endeavours to survey the forested interior of central Labrador even though similar research in Quebec, beginning with the Rogers' survey in the Mistassini district (Rogers and Rogers 1948, 1950; Martijn and Rogers 1969) demonstrated the archaeological potential of the boreal forest zone. The massive salvage projects necessitated by hydroelectric development in Nouveau Quebec have considerably expanded our awareness and understanding of the settlement-subsistence patterns of both prehistoric and historic northern Algonkian hunting and fishing groups. Unfortunately, the flooding of Michikamau caused by the Churchill Falls hydroelectric project was not preceeded by the same rigorous investigations. Cursory surveys in 1967 and 1968 (MacLeod 1967, 1968) found traces of prehistoric sites and a number of historic sites, but these leads were not followed up and the sites are now under water. Given the importance of the Michikamau region in historic Innu accounts, the loss of its archaeological data base is very lamentable.

The principal objective of our ten day survey was to examine geological formations in the Seal Lake region to determine their suitability for tool manufacture and to look for evidence of their exploitation in prehistoric times. We hoped both to pin down the origin of Intermediate Indian period lithics and to establish a possible point of origin for visually similar materials found on sites in interior Quebec. We also wanted to determine if native copper found on Maritime Archaic mortuary sites came from deposits in the Seal Lake region.

In addition, the Seal Lake region (Figure 1) is located adjacent to the open parkland and barrens of the plateau country to the north, and the relatively rich marine ecosystems of Hamilton Inlet and the Labrador coast to the east. As this locality was used extensively by Montagnais-Naskapi groups during the late 19th and early 20th centuries, it appeared to be a very promising area in which to look for evidence of previous land-use in the densely-forested lake region of the Labrador interior.

ETHNOGRAPHIC BACKGROUND

Seal Lake is on the important canoe route between Hamilton Inlet, Davis Inlet, and Lake Michikamau, and thus has figured prominently in the history of Native land use and early White exploration of interior Labrador. Currently, Innu groups from the Quebec North Shore and Sheshatshiu (the Native community at North West River) visit the area to trap, hunt, and fish (Mailhot 1985; Speck and Eiseley 1942; Tanner 1944).

The earliest written descriptions of the region come from Mina Hubbard (1908) and Dillon Wallace (1907), who in 1905 traversed Seal Lake on their separate expeditions to Ungava Bay. Although Mina Hubbard claimed to be the first White traveller to explore the Naskaupi River, she was in face preceeded by Erland Erlandson, a Hudson's Bay Company factor who in 1834 was sent across the interior to assess the possibility of eventually establishing an inland trading post (Davies and Johnson 1963: 247). Other traders and many missionaries followed this well-established route inland; however, no documents remain to confirm their itineraries (Cooke 1964: 149).

At the turn of the century, when fur prices were at a premium, the Seal Lake region was used by White trappers living at North West River and on the coast. Men such as Duncan McLean, and Gilbert and Donald Blake made the long canoe and sled journey up the rivers before freeze-up, tended their trap lines all winter, then returned to their homes on the coast (Mann 1959: 8; Wallace 1905: 29).

Over the past few decades, the region has been of particular interest to geologists. As early as 1843, a reference to copper in the area was made by W.H.A. Davies, post-manager for the Hudson's Bay Company at North West River. A specimen of native copper found by Inuit on the Labrador coast 15 miles south of Hopedale was brought to Davies who reported it to be part of a much larger piece of water-worn float (Davies 1843: 83). Apparently no one considered the information of sufficient interest to make a search inland to look for the source of the float. In fact it was not until 1946 that intensive geological exploration of the area began, mainly in the hope of finding an iron formation similar to that of the Labrador Trough. Instead, evidence of copper mineralization was found in a number of localities, though none have proved to be of economic importance (Mann 1959: 9).

PHYSIOGRAPHY OF THE SEAL LAKE REGION

The Seal Lake district lies on the northern boundary of the coniferous forest zone. Much of the country, except the ridges and mountain tops, is covered by thick stands of black spruce and balsam with occasional patches of birch and poplar. Tamarack is found sporadically in the valleys, while willows and alders are profuse along shorelines (Mann 1959: 17).

Seal Lake acquired its name from the presence of a population of landlocked seals that have been reported to live in the lake. Erlandson on his 1834 voyage stated that, "In descending a river, which falls into Archiconopy Lake [Seal Lake], we met many seals ascending it" (Davies and Johnson 1963: 254). Seventy-one years later, Mina Hubbard (1906: 537, 1908: 75) also encountered seals at the point where the Naskaupi River enters Seal Lake, and her sighting remains the only reported eye-witness account. Her journal entry for July 17, 1905 reads in part:

> George [Elson] shot two muskrats coming up the lake this evening and almost shot a seal. Gilbert [Blake, a trapper from North West River who guided the Hubbard party through to Michikamau] pleased that we saw one. Said lots of people do not believe the trappers when they say there are seals here. The one we saw tonight was a good big one too.

and for the next day, July 18th:

> Saw another seal tonight. George took a shot at him with his rifle but shot high. Seal swam off to southwest and men met him and near point Joe shot at him with pistol. Also missed. Legend has it they are invulnerable.

Elson is much more laconic in his journal entry for July 17th:

> Seal Lake is so very pretty. Nice scenary [sic]. I killed two rats and had a shot at a seal.

Additional references to the seals of Seal Lake are provided by A.P. Low (1896: 316) who was told of them by native informants, by Wallace (1905: 49), and by William Duncan Strong (1930: 10). By the 1950s, Mann (1959: 18-19) reported that "Only an occasional seal has been noted in the lake in recent years and none was observed by the recent geological prospecting parties" -- nor by subsequent archaeologists for that matter.

Grenfell (1909: 370 in Mann 1959: 18) maintained that harbour seals (Phoca vitulina concolor) lived and bred in Seal Lake, but left in winter for small islands off the Labrador coast where the sea does not freeze. It seems likely, however, that the seals once found at Seal Lake belonged to a non-migratory, landlocked populations of some form of Phoca vitulina (Harper 1961: 127). As explained by Harper (1961: 127):

> The best known case is that of the Ungava Fresh-water Seal, described by Doutt in several excellent papers (1939: 233, 1942, 1954: 239) as inhabiting Lower Seal Lake and Upper Seal Lake, on the upper waters of the Nastapoke and Little Whale Rivers. Here, in former years, the Indians killed annually more than 30 (Low 1898:13).

Arthur Twomey (1942: 177), who accompanied J. Kenneth Doutt on the Carnegie Museum expedition to the Seal Lakes of Ungava, reported that the inland seals did not use blow-holes during the winter. With freeze-up the seals would concentrate at rapids and falls where the water remained open and, as the winter progressed and the lake levels fell, they would gravitate to air pockets that formed along the shore. Here the seals could haul themselves out on the exposed ledges and be protected by an icy roof. Twomey was told by his Richmond Gulf informants that the seals were hunted during the summer on beaches where they came ashore; that a group of eleven had once been taken; and that the use of nets to catch seals had preceeded the use of guns. The Seal Lake located on the Naskaupi River was the only location known to Harper's Montagnais informant, Jerome St. Onge, where a landlocked seal population occurred in the peninsula (Harper 1961: 127).

Strong (1930: 9-10) collected an oral history account that has some bearing on the question of fresh-water seals in Seal Lake. His Naskapi informants professed belief in two kinds of hugh otters said to live in certain large interior lakes:

> Two old men of the Davis Inlet band claimed to have seen one of these animals, called *wen-tsuk-ah-mes-e-tey-oh*, in Seal Lake. The body was said to be blackish brown with white lower legs and feet, large ears, and the animal was of great size. It whistled *wheu-u-u*, on a very low note...This animal has not been seen for many years, but an old story tells of an Indian who killed the young of this species and was pursued by the mother otter who could swim under land as well as water. According to the story, she killed the man who destroyed her young, but his companion escaped to tell about it. The other mythical otter is called *mis-in-tsuk*, being about ten feet long and built almost exactly like a seal. It is said not to be dangerous unless attacked. One Davis Inlet man claims to have seen this animal in *actagon napeesh* or Little Seal Lake (a short distance northeast of Seal Lake.

Strong (1930: 10) concluded by pointing out that while the Naskapi had often killed seals in this region, no one had ever killed one of these giant otter.

A diversity of fauna is currently available in the Seal Lake region, particularly fish, small fur-bearers, and woodland caribou. During our visit we saw two moose, several flocks of geese, mergansers, as well as occasional ptarmigan and spruce grouse. Moose, whose tracks were ubiquitous, are recent immigrants in central Labrador, having expanded into the region over the last twenty years. Bear and wolf tracks, though less numerous, were also noted.

GEOLOGY

Seal Lake is contained within a geological syncline dating to the late Precambrian (Proterozoic) period (Brummer and Mann 1961: 1380; Ghandi and Brown 1975: 146). The syncline is shaped like an overturned canoe and composed of well-stratified sediments, lavas, and diabase sills. The dominant physiographic features of the area are long, persistent, homoclinal ridges separated by gently curving strike valleys and elongated lakes. The ridges have prominent cliffs averaging heights of 550 metres above sea level, and steep talus slopes in the northern sector (Brummer and Mann 1961: 1363; Mann 1959: 23).

The general geology of the area can be described as an elongated basin of folded Precambrian sediments which rests uncomfortably on a basement composed of granite, granitic gneiss, and anorthosite. The rocks of the sedimentary basin are divided into two groups: the younger, and by far the most extensive Seal Lake group; and the older Letitia Lake group which forms the southwest flank of the basin. To the east the Seal Lake rocks are cut off along the north-south trending Pocketknife Lake fault and abut against older sediments and volcanics known as the Croteau Lake group (Mann 1959: 44).

Frobisher geologists working in the area during the 1950s identified six separate formations in the Seal Lake group of rocks. These formations include metasedimentary rocks, volcanic flows, and intrusive diabase, and total at least 10,500 m in thickness. Red and white quartzite, red slates, and argillite predominate; greywacke, conglomerate, and calcareous rocks are also present (Brummer and Mann 1961: 1368; Mann 1959: 123). The Letitia Lake group crops out along the southwestern flank of the Seal Lake syncline. It consists of interbedded schistose, porphyritic volcanic, and metasedimentary rocks, including quartz-feldspar porphyry, rhyolite, tuffaceous rhyolite, dense argillite, and minor agglomerate beds (Brummer and Mann 1961: 1366).

More than 250 showings of copper mineralization have been discovered in the area surrounding Seal Lake. Most occurrences of tabular to platey nuggets have been found in the volcanic rocks or in the red shales in contact with these basalt flows. At the Main Copper Showing, the occurrences are spectacular, with irregular masses up to 10 x 60 x 100 cm in size having been found (Mann 1959: 226). The copper is of excellent grade but never occurs in sufficient quantities to warrant further development (Brummer and Mann 1961: 1370; Mann 1959: 178).

SURVEY RESULTS

We travelled from Goose Bay to Seal Lake by float plane and established a base camp at the northern end of the Narrows where the stream (which Wallace [1907] named the Babewendigash River) draining Namaycush Lake enters Seal Lake. From this location, we planned surveys to four parts of the region, placing particular emphasis on the historic travel route up the Naskaupi River, through the Narrows to Seal Lake, then west to Wuchusk Lake. Although one day was lost due to high winds and rain, an extraordinary stretch of clement weather greatly facilitated canoe travel. The artificially low water level of Seal Lake resulting from the creation of the Churchill reservoir ensured that the canoes, on occasion, had to be pushed and poled over shallows.

I — Babewendigash River and the Narrows

It had been Leonidas Hubbard's plan in 1903 to follow the old Indian trail from Grand Lake to Michikamau on his overland expedition to the George River. That he went astray and subsequently died of complications resulting from starvation and exposure is a frequently-told story, very much a feature of Labrador's mystique (Davidson and Rugge 1988; Wallace 1905). In 1905 both Hubbard's widow - Mina Hubbard - and his companion on the ill-fated trip - Dillon Wallace - returned to Labrador to head separate expeditions, each determined to complete the work that Hubbard had begun. By tacit agreement Mina Hubbard and Wallace studiously avoided each other. Thus while Hubbard's party followed the Naskaupi River valley despite the obstacles imposed by the strong current and dangerous rapids, Wallace opted for the longer Indian portage trail that left the Naskaupi River opposite the mouth of the Red Wine River, and followed a convoluted course overland to the Crooked River headwaters and Lake Nipishish. From Nipishish the portage route led through a number of small ponds to Otter Lake and Portage Lake. The route that Wallace followed then went north and west from Portage Lake through jumbled kame and kettle topography, to the shores of Namaycush Lake, whose outlet, the Babewendigash was followed to Seal Lake.

All along this route Wallace's party found the remains of Innu camp sites, caches, and graves (Figure 2). Although Wallace claimed that the route had not been traversed in the ten years preceeding his crossing, this seems unlikely given its importance in historical accounts. For example, W.H. Davies (1943: 79-80) described the route as it was known in the 1840s; and the Boston Algonkianist, William Brooks Cabot (Loring 1987), made two trips over a portion of the trail with Innu families from North West River in 1921 and 1923 (Figures 3-5).

The Grand Lake and lower Naskaupi River portion of this old route as far as the confluence of the Red Wine River was briefly surveyed by William Fitzhugh during his initial Labrador field season in 1968. As this work has not been previously reported, an account is made here. In addition to noting evidence of contemporary Innu camps and trapper's tilts, Fitzhugh tested the old Crooked River Portage site on the east bank of the Naskaupi River opposite the mouth of the Red Wine (Figure 5), about twenty-five kilometers up from Grand lake. According to North West River trappers, this site had been used for many years by Innu groups as a way-station for preparations before going into and out of the bush. North West River was their usual summering spot for trade, visiting, and contact with Catholic priests who visited or resided there (see Fitzhugh 1972: 47-51; Mailhot and Michaud 1965; McGee 1961; Tanner 1944). In recent years the Innu have been chartering aircraft into the interior and have abandoned old canoe routes and sites.

In 1968 the campsite consisted of numerous clearings in the broken spruce, aspen, birch and shrub cover, interspersed with small blowouts and sandy exposures, covering an area some 200 m long. Vestiges of nearly fifty tent sites could be detected as grassy clearings with surface remains of decaying spruce poles and boughs, log floors and foundations, hearths, tin cans, wood chips, and other materials. Sub-surface testing revealed the presence of cutlery, toys, wire, iron, glass, and other items of Native and European manufacture. In one area flakes of chipped green siltstone were found, but they occurred together in the profile with historic objects and no further suggestion of a prehistoric component was seen. Most of the historic artifacts dated to the 20th century, with some from the 19th century. At that time the Hudson's Bay Company maintained an outpost near the mouth of the Naskaupi River, on the east bank opposite the head of Long Island. It is likely that the site contains a full range of historic components dating back to the establishment of Louis Fornel's trading post at North West River in 1743. Study of the site included a walk up the portage trail for several hundred metres to a point where the path became overgrown and difficult to follow, suggesting at least several decades of disuse.

The Naskaupi Portage site represents an important stage in the settlement pattern and socioeconomic change of the Innu from their former predominantly interior adaptation to their present semisettled life in North West River. In the past, the Naskaupi Portage site appears to have been occupied for considerable periods of time in the fall and spring months. It lies between the geographic and seasonal extremes represented by their winter/spring occupations in the Michikamau region and their summer encampments at North West River. Further study of this site might produce an important archaeological record of changing Innu lifeways, no longer available at either of their other primary occupation areas (due to the flooding of the inland sites and damage to North West River sites by recent town expansion).

Upon arriving at Seal Lake, we first paddled about one third of the way up the Babewendigash River toward Namaycush Lake. Although we tested a number of likely-looking localities, particularly the high, sandy northern bank near the mouth of the river, we found no evidence of prehistoric occupation. This proved to be a scenario that was frequently repeated during the course of our surveys. A small, recent (within the last 20 year) Innu camp (GbCi-2) was located near the mouth of the river, on the south shore. There we found collapsed tent poles, stove pegs, and many chopped tree stumps. This was probably a fall or winter occupation judging from the sheltered location of the site and the 1.5 m high axe-cut spruce stumps.

During this first phase of the survey a large cobble hearth was discovered on a small terrace on the eastern shore, at the head of the Narrows. At the time, we were unable to investigate further this locality; however, Loring and Rowley spent a few hours testing the site at the conclusion of our survey. It proved to be an Innu camp (GbCi-1) consisting of a single circular tent-ring with a central cobble hearth, probably dating from just before, or not long after, the turn of the century.

A number of artifacts were recovered from a test-pit that exposed the cobble hearth: a copper snow-shoe needle, the bottom of a small tin can, a single blue seed bead, a primer cap, and a carefully folded birch-bark bundle which contained three wooden matches (Figure 6). The structure is very similar to the well described circular earthen-wall tent-rings of the historic Indian groups in Labrador (Loring 1983), Indian House Lake (Conrad 1972; Samson 1975), and Fort Chimo (Lee 1966). Clifford Easton, who accompanied Wallace on the final dash to Ungava Bay in 1905, noted that only a few of the Naskapi tents he saw had tin stoves, the majority still used a circular platform of rocks as a base for cooking and heating fires (Easton 1908: 297).

The circular tent ring was adjacent to a large boulder or bedrock exposure that stood at the edge of the terrace between the tent site and the Narrows. Mina Hubbard observed that frequently the "wigwam poles" at abandoned Indian camps were leaned against boulders to insure their availability when returning to the site in subsequent years (Hubbard 1908: 66).

II — Thomas River

Leaving our basecamp we paddled south through the Narrows into Naskaupi Lake. The principal drainage that enters the western shore of the lake is the Thomas River which we ascended 5 km to Salmon lake. This country is well-known to John and Leslie Michelin, trappers in North West River, who ranged widely over the region in the late twenties, thirties, and forties. The Michelins told us of an abandoned Innu camp situated at the "first rapids" on the Thomas River. An excellent salmon pool lay at the base of the rapids and Michelin recalled finding leisters and torches cached in the trees. The Thomas River was also the denouement of the cross-country portage route that the trappers (and to a lesser degree the Innu) from North West River used to avoid the particularly treacherous section of the Naskaupi River as it works through the mountainous terrain south of Naskaupi Lake. The portage route passes to the west of the Naskaupi River; it ascends the Wapustan River (named by Mina Hubbard) before turning off and following a small tributary and a number of short portages to Dorothy Lake. The outlet of Dorothy Lake forms a confluence with the Thomas River within a kilometre of Naskaupi Lake. This is the route that Gilbert Blake followed when he led Mina Hubbard's party to

Michikamau in 1905 (Hubbard 1908), and which Leslie Michelin used when bringing supplies to the Brinex (British-Newfoundland Exploration Company) geologists at Seal Lake in the late 1940s.

There is an open, sandy terrace slightly higher than the surrounding ground on the south shore of the confluence of the Dorothy Lake stream and the Thomas River. Surveying this terrace we located three hearths containing fire-cracked rocks (GbCj-1), partially visible under the carpet of moss. Area 1 contained two adjacent hearths spaced 2 m apart, 10-15 m in from the front of the terrace. Area 2, located 75 m west of Area 1, consisted of one hearth. No artifacts or faunal remains were found in any of the hearths. Charcoal associated with these features was not collected due to the likelihood of forest fire contamination. These hearths are similar to those found in 19th and 20th century Innu camps, but without the assurance of diagnostic cultural remains the identity of this site remains open for speculation.

Just to the east of this locality, on the south shore of the mouth of the Thomas River, we found what eventually amounted to the only sign of a prehistoric presence in the Seal Lake region, site GbCj-2. Lying on the sandbank 15 cm above the then current summer water level, one metre from the water's edge, and about two metres below the junction between the forest duff and the mineral soil in the in situ bank above, was a large core of red quartzite and thirty-two small red and grey quartzite flakes. These artifacts were all found within an area of two square metres. They appeared to have recently eroded from the river bank, but sub-surface tests were unproductive. A possible deflated or eroded hearth was found 200 m further downstream on the sand flats where the Thomas River enters Lake Naskaupi.

Considerable attention was given to a survey of the large salmon pool margins at the first rapid ascending Thomas River. This site has been mentioned for many years by North West River trappers John, Leslie and Herbert Michelin, and John Montague as the best place for spearing salmon in the Naskaupi drainage and the location where Naskapi Indians gathered annually for night fishing with leisters and torches. The shores bordering the rapids and the deep pool below it have numerous ideal camping spots, and our brief experimental programme with modern rods and lures produced large trout. Nevertheless, careful subsurface testing of the terraces and open woodlands produced completely negative results, quite to our surprise. We attribute this to severe erosion of the terrace bank at the lower end of the pool, the most promising site locale. Despite our lack of success, salmon fishing seems to have been an important subsistence activity of the Innu in the Naskaupi River region. Herbert Michelin reported having found a leister at the large Innu camp we have designated GcCj-1 (below), and John Montague reported finding a similar specimen at Lady Marion Falls on the upper Naskaupi River.

While flying into our basecamp, Fitzhugh had spotted tents on the terrace above the second rapid on the Thomas River. Climbing the bank beneath this spot we discovered a deserted camp that did not appear to be of Innu manufacture. We soon realized that it had been built by members of the German Air Force as part of a survival training exercise. The "German Survival Camp", as we came to call it, consisted of three small tents made from cut parachutes. In the centre of the camp was a hearth area, well-sheltered by a wind-break also manufactured from parachute silk. The following day, on higher land above the site, we found an area that had been cleared to serve for helicopter pick-ups. The camp probably continues to be visited intermittently during fishing outings, as attested to by a number of Heineken bottles not, we suspect, standard-issue survival gear.

The high terrace on which the German camp was built would have been well-suited to occupation in the past as it was an excellent fishing spot; however, our tests revealed no evidence of prehistoric or, for that matter, recent Innu utilization of the area. In fact, intensive surveys on both banks above and below the first and second rapids failed to locate any other cultural remains.

No sites were noted during a hike to the eastern end of Salmon Lake, but on our way back, we located another German camp, though this one was less elaborate or heavily littered with German-manufactured items. This camp appeared to have been established first, before the larger and better-situated site across the river was selected.

III — Wuchusk Lake

Having reprovisioned at our basecamp, we headed across the eastern end of Seal Lake and up the Naskaupi River to Wuchusk Lake (Figure 7). There is a prominent sand beach on the north shore of Seal Lake immediately west of where the Naskaupi River enters the lake. The beach proved to be the location of a large contemporary Innu campsite (GcCj-1) consisting of four tent structures with their associated activity areas, caches, meat-drying scaffolds, fur-stretching frames, and tilts (Figure 8-11). The site had last been occupied during the late winter and early spring months by several families from Shetshatshiu who had chartered into Seal Lake for an extended period of hunting and trapping. Morris Chaulk, a trapper from Goose Bay, also camped at the site while hunting in the area during the 1985-86 winter months. Mina Hubbard stopped to camp here when she passed through in 1905, having taken twenty days to reach Seal Lake from North West River.

We spent two days mapping the contemporary camp and testing for prehistoric components. The site, with its commanding view over the eastern expansion of Seal lake, is centrally located to provide access to most lakes and rivers of the region. Despite this promise, no prehistoric components were located.

Indeed, a peculiar feature of this site was the total absence of evidence of occupation earlier than the modern Innu camp. Eroding shore locations and extensive beach exposures held no trace of earlier Innu or prehistoric material, and extensive testing and inspection of many tree-throws from a recent violent windstorm produced only a single possibly man-made lithic flake. The absence of archaeological traces at the most prominent camp location in the Seal Lake region must be considered a significant indication of light prehistoric and early historic period occupation or of a predilection for choosing immediate shore-side campsites that would be destroyed by spring floods, a possibility further considered below.

We spent a day exploring a series of parabolic dunes located on the sand flats of the Naskaupi River valley, 3 km west of Wuchusk Lake (Figure 12). No signs of occupation were spotted, nor were any sites discovered in testing the high sandy terraces near the rapids at the outlet of Wuchusk Lake.

IV — Seal Lake

We spent four days surveying the eastern half of Seal Lake. A hike to the Eastern Copper Showing proved to no avail as the area had been heavily blasted during geological trenching and stripping operations. We eventually did locate a small vein of copper in rocks on the north shore of central Seal Lake, and were able to obtain samples.

We visited another recent Innu camp (GcCj-2), located beside a small stream at the base of a waterfall on the north shore of Seal Lake. The camp had been built on a two metre high bank, on thickly moss-covered, uneven ground. Two large square tents had stood in an area cleared of trees. The camp's location combined with the height of sawed tree stumps and the presence of a sled suggest occupation during the winter or spring.

On our way back to the basecamp, surveys on the long, sandy esker which juts into Seal Lake and on the point of land directly west of this esker revealed additional signs of recent Innu utilization. In both localities we found two look-out points where a fan of spruce boughs had been laid on the ground, presumably to provide a comfortable seat in snowy weather. These were probably observation stations used in hunting moose or caribou. In one instance, a campfire had been built nearby. Cabot (1920: 144-145) observed similar "mats" while travelling in the Mistastin River region in 1904. Finally, two recent Innu camps (within the past 20 years) were located in the dense brush well back from the shore, just to the north of our basecamp.

GEOLOGICAL SAMPLES

One of the primary objectives of our survey was to evaluate the lithic resources available in the Seal Lake region. Therefore, with the help of detailed geological maps (from the old British-Newfoundland Exploration Company records, courtesy of Ronald Watts of North West River), we pinpointed the formations most likely to contain flakeable materials. We gradually discovered, however, that many outcrops could not be visited due to their elevations and the thick forest growth protecting them from archaeologists. Nevertheless, we routinely examined outcrops that were accessible and tested cobbles lying in streams and on beaches. As a result, a good view was acquired of the kinds of stone that would have been available to prehistoric knappers visiting the Seal Lake region. The only lithic materials we encountered that would have been of particular interest to prehistoric peoples were red quartzite, fine-grained basalt, slate, and native copper.

Samples of vitreous red to mauve quartzite were collected from a number of localities in the course of our survey. The material is available in large blocks, displays excellent conchoidal fracture, and produces extremely sharp edges. These samples most likely come from the Upper Red Quartzite Formation that forms the youngest member of the Seal Lake succession. The formation is composed entirely of massive and bedded glassy quartzites. The rocks are well-sorted and generally medium-grained, but variations from fine-grained to coarser-grained laminations can occur. The formation has a characteristic red colour, but minor variations from bright red and maroon to pale pink and reddish-grey are typical (Mann 1959: 186-7).

Evidence that this material was used during prehistoric times comes from site GbCj-2, described above. Similar red quartzites have been found on sites from a number of different time periods on the Labrador coast and the Quebec North Shore; however, numerous source locations for fine-grained red quartzites exist in east central Labrador (Fitzhugh 1972: 39), thereby diminishing the likelihood that Seal Lake was an exclusive or preferred source of this material.

In similar manner, the red and maroon slates which outcrop at Seal Lake would have been well-suited to prehistoric needs. In the absence of evidence of quarrying and utilization, however, it is impossible to determine if this interior source of slate was exploited in prehistoric times. Finally, native copper also was available in the Seal Lake region, but detailed chemical analyses of many copper sources from the Northeast will be necessary before one can determine if Maritime Archaic copper pendants originated from this source.

CONCLUSION

Although this survey project was of short duration, the results allow us to make some suggestions concerning the possible source location of Saunders chert, and the prehistoric utilization of the Seal Lake region. None of the geological samples collected permits us to conclude that the Seal Lake area contains sources for the cherts and volcanic rocks employed by Indians of the Intermediate period. Red quartzite and high quality slates were widely available in the glacial drift throughout the central Labrador coastal zone. Therefore, the lack of prehistoric sites tends to suggest that these lithic materials were not specifically sought out in the Seal lake region. Similarly, although native copper occurs at Seal Lake, we found no indication that it was being quarried there. Finally, no Saunders cherts were found in the sediments along the shores and rivers of Seal, Wuchusk, Naskaupi, and Salmon Lakes. Since these sediments have been derived in part by glacial transport from regions farther to the west, we can be reasonably certain that the source of Saunders chert does not lie in this direction.

With Seal Lake and points west eliminated, the next most likely source locale for Saunders chert lies just to the east, in the Pocket Knife Lake area. Geological maps of this region indicate that the Croteau Group of rocks, in particular, may contain sources of flakeable stone:

> Most rocks of the Croteau Group...are volcanic and are rhyolitic to andesitic in composition. They are generally purple, pink, dark green, or light grey-green. Almost all contain phenocrysts of feldspar, and locally small quartz "eyes" are present as well...Amygdaloidal and flow breccia layers are common in the volcanic rocks southeast of Pocket Knife Lake (Geological Survey of Canada 1958).

In this regard, it is interesting to reconsider one of the previously described travel routes used to avoid the rapids on the Naskaupi River. It consisted of portaging to the east, through a series of small lakes and rivers. This was the route followed by Erlandson in 1834 and by Wallace in 1905 (Wallace 1908). As Davies and Johnson (1963: 255) explain:

> [Erlandson] reached the "Mechikamau" (Naskaupi) on 21 June after a day and a half's travelling overland and through small lakes. Possibly he left Seal Lake at the Narrows (Mrs. Hubbard's map locates an Indian portage route leading in here) and struck eastwards. "Pestish Lake" shown on the maps of Erlandson's journey might be modern Portage Lake [located to the southeast of Namaycush Lake].

Perhaps future reconnaissance work in the Pocket Knife Lake region will demonstrate that the direction of this portage route was linked, in the past, to the availability of lithic materials in that region, as well as to a greater abundance of wildlife (as reported to us by North West River trappers and Innu informants).

Even if we eventually discover that areas to the west contain important lithic resources, the paucity of sites in the Seal Lake region remains surprising. Certainly a brief survey does not provide sufficient time to adequately test all localities. Therefore, we may have overlooked some prehistoric sites, particularly if they were small winter season encampments or habitations located far from the shore in densely forested areas. Also, the rate of erosion along the banks of the Babewendigash and Thomas Rivers suggests that some sites may have been destroyed, as was the case with GbCj-2.

The practice of placing summer camps on the exposed, low water beaches of river and lake shores may have contributed to the lack of archaeological remains. Shore-side camps would be open to the wind and breezes, providing relief from the swarms of mosquitoes and blackflies for which the region has long been justly famous. Exactly such a camp is documented in a photograph taken by Henry Bryant of Philadelphia in July of 1891 (Figure 13). Bryant (1894: 13) spent a fruitless week in North West River endeavoring to hire Indian guides to take him up the Hamilton River to the Grand Falls. All traces of the Innu camp, on the shores of Grand Lake above North West River, would have been destroyed by high water and ice action during the subsequent spring break-up. Riverine sites would be even more susceptible to destructive natural processes. Fitzhugh (1972: 48) has commented on the perishable nature of northern Algonkian material culture; this would be especially true with the remains of summer fishing encampments. Thus, our inability to elaborate on the human history of this area may reflect more on the materialist biases of archaeology itself than on the reality of the human experience in interior Labrador.

Finally, the survey at Seal Lake was hampered by the lowered water levels in the Naskaupi River system. During our visit water levels were 3-4 m below pre-Smallwood Reservoir days, causing large expanses of lake bottom to emerge. The encroachment of dense alder growth down these exposed flats has effectively bushed in former banks. The eroding faces of such banks are often the primary means for locating prehistoric sites in the boreal forest zone.

In sum, our survey results suggest that the Seal Lake region began to be frequented on a regular basis in the late 19th and early 20th centuries by both Montagnais-Naskapi groups and White trappers. This phenomenon may have been related in part to the location of fur trade posts and the installation of Native communities at North West River and Davis Inlet. Earlier travel routes, now to some degree obscured by the flooding of Michikamau, may well have avoided the essentially east-west corridor of the Naskaupi River for a north-south route that provided access to the larger populations and the resources of the St. Lawrence estuary.

Seal Lake continues to be visited regularly by members of the Sheshatshui band, and judging by the sightings and by the number of tracks observed during our visit, appears to be a propitious locale for moose hunting and for salmon, trout, and namaycush fishing. Additional surveys will be required to determine if regions further to the east such as Pocket Knife Lake contain better lithic and faunal resources and, consequently, were preferred camping localities for prehistoric groups in interior Labrador.

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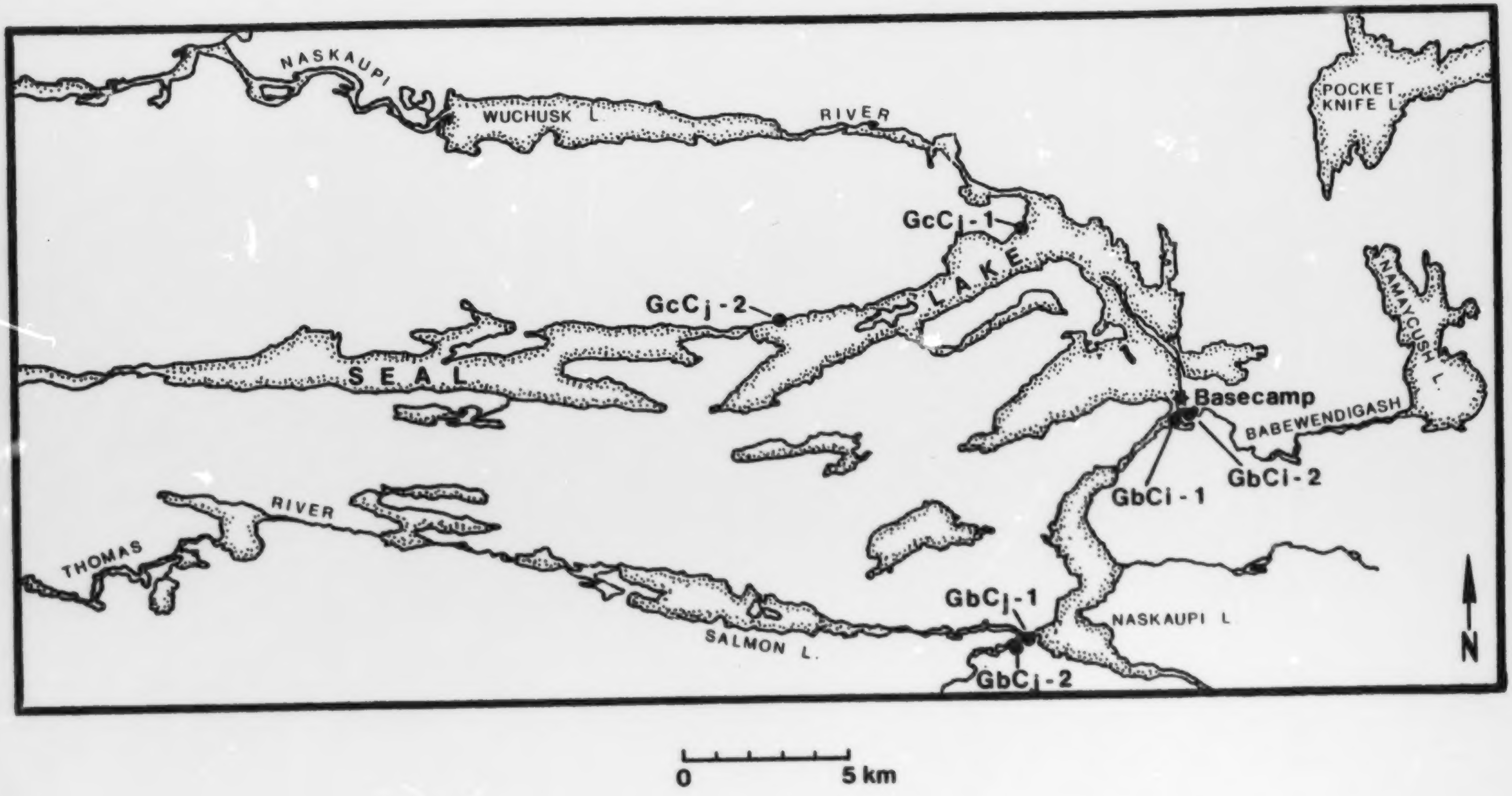
NASKAUPI
WUCHUSK L.
RIVER
POCKET KNIFE L.
GcCj-1
LAKE
GcCj-2
SEAL
NAMAYCUSH L.
Basecamp
BABEWENDIGASH
GbCi-1
GbCi-2
RIVER
THOMAS
SALMON L.
GbCj-1
GbCj-2
NASKAUPI L.
N
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Figure 1. The Seal Lake region.

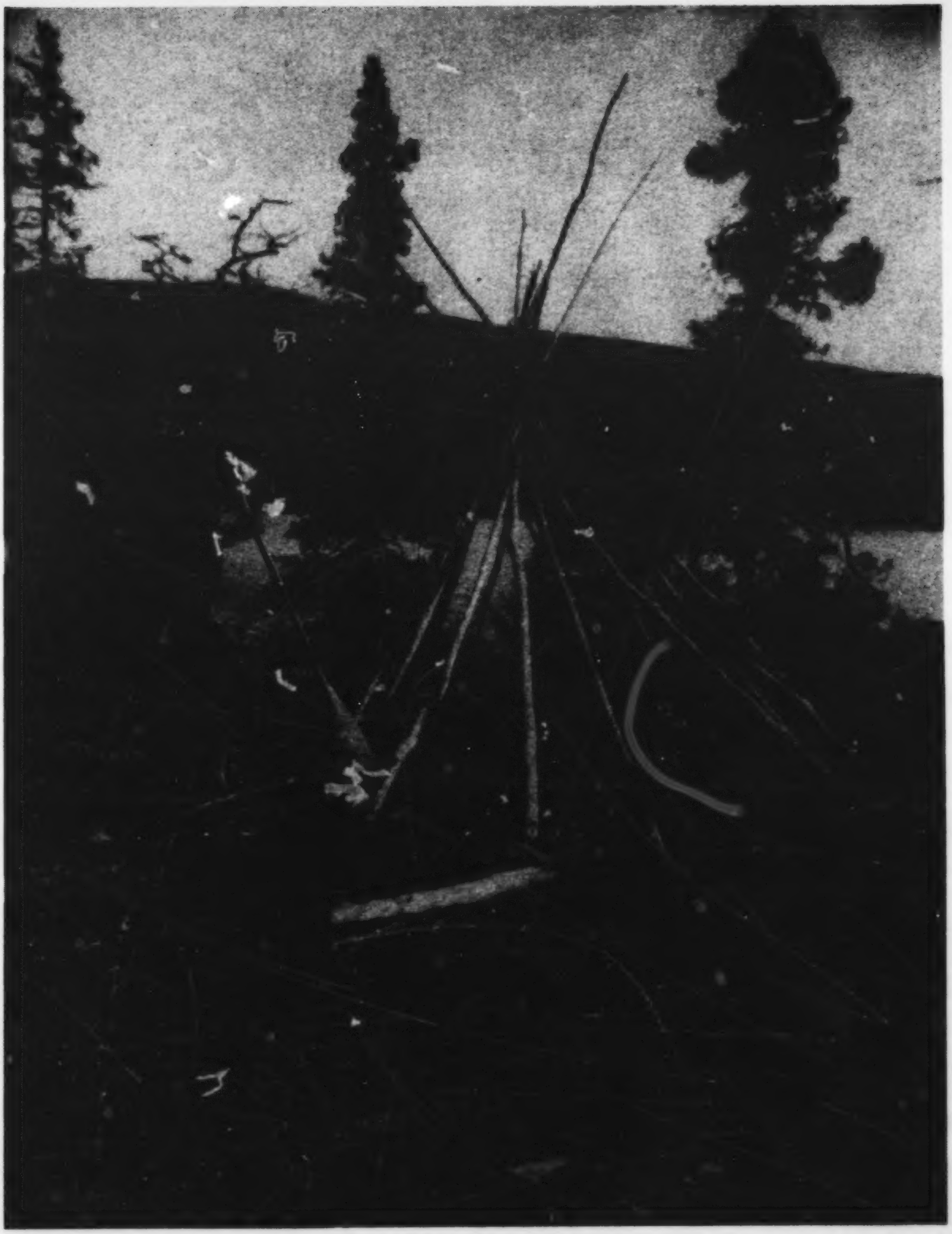


Figure 2. Innu camp in the vicinity of Portage Lake, on the Indian trail to Seal Lake. Photograph by Dillon Wallace, July 1905. (Photograph courtesy of The Labrador Heritage Society, Happy Valley, Labrador.)

Figure 3. A group of Montagnais-Naskapi from North West River being transported to the head of Grand Lake. In 1921, William Brooks Cabot accompanied this party over part of the Indian portage trail to Seal Lake. Photograph by William Brooks Cabot, August 1921. (Photograph courtesy of Smithsonian Institution, National Anthropological Archives, Cabot Collection WBC 1921: 12.)

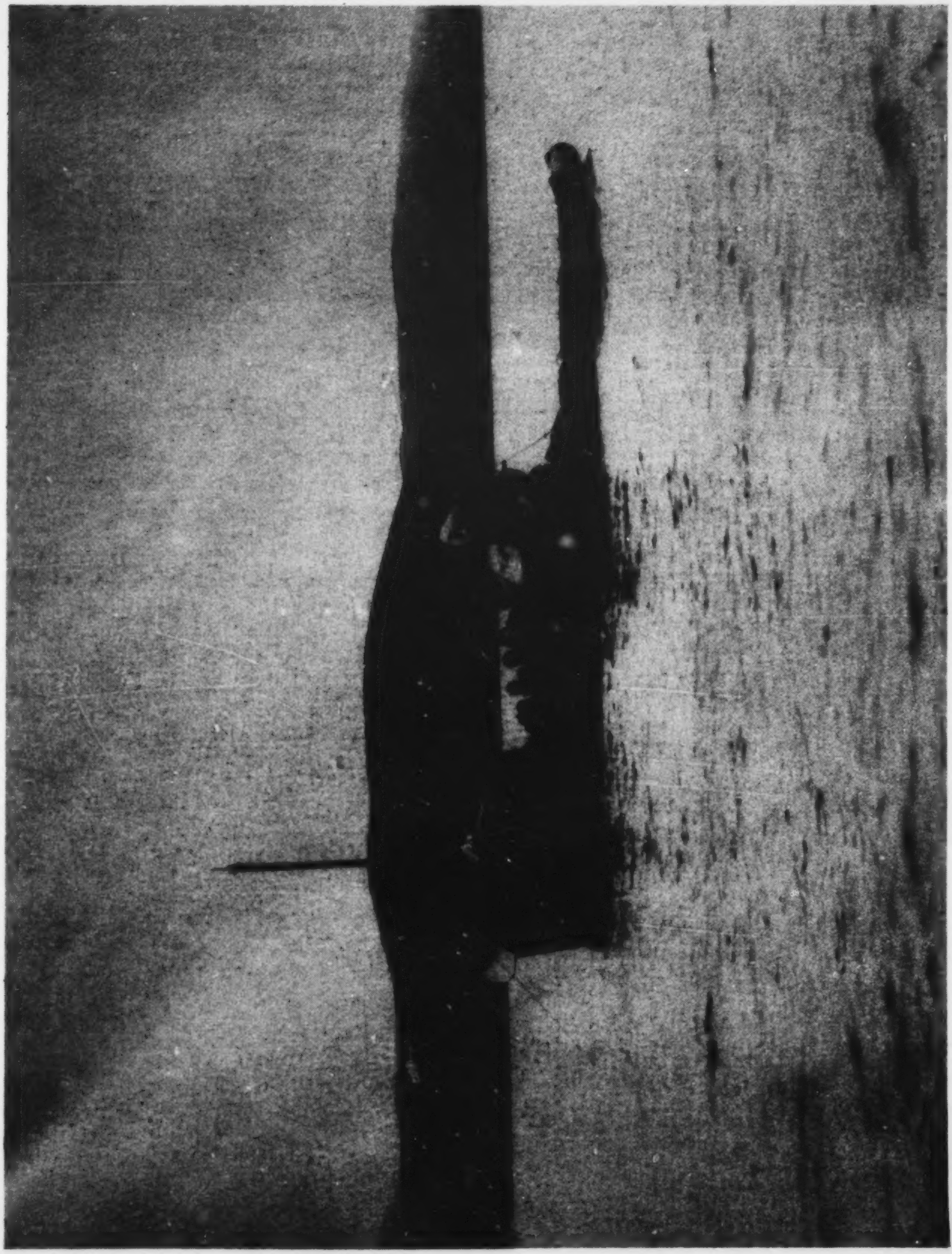
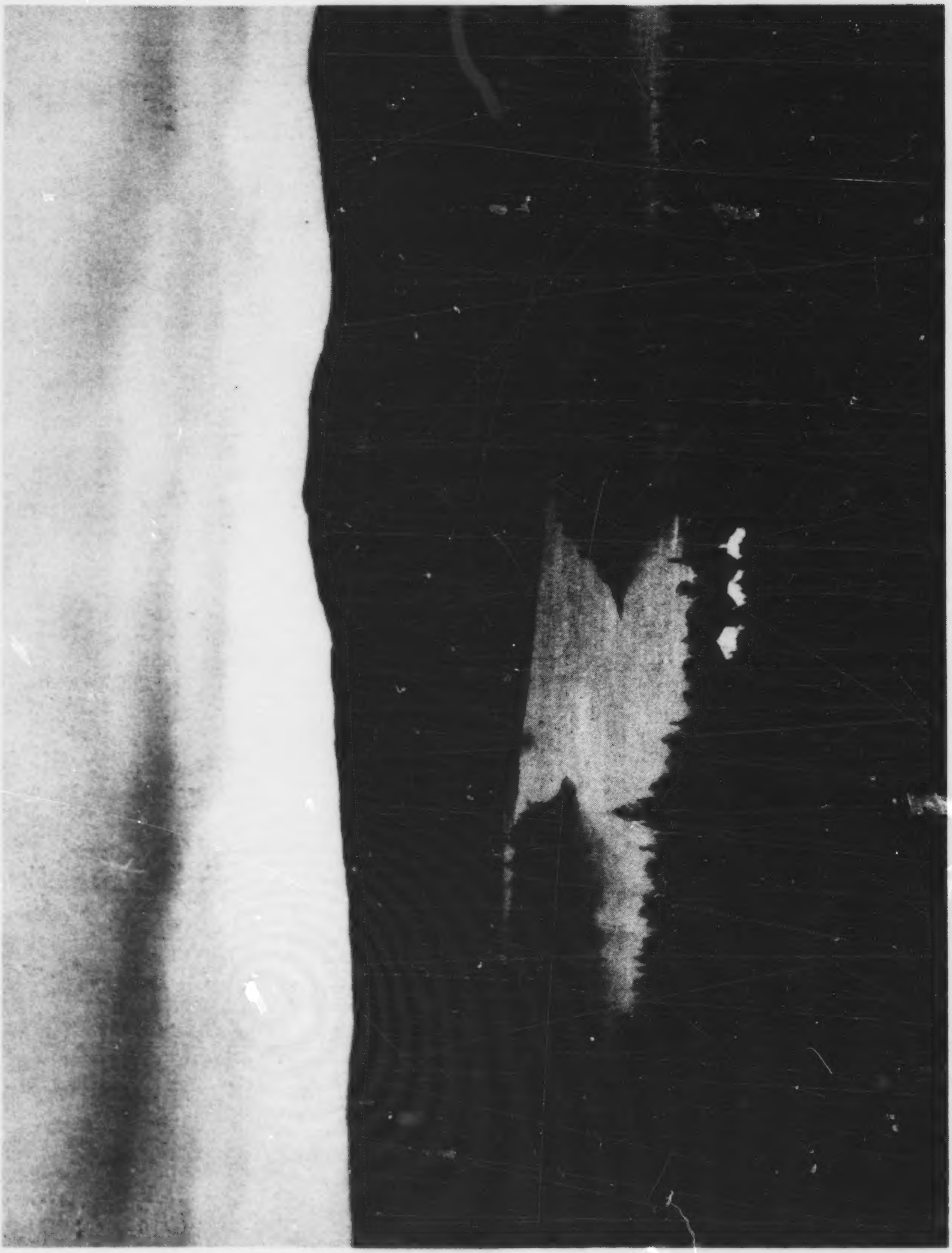


Figure 4. Innu family on the portage trail between Naskaupi River and the headwaters of the Crooked River. Note the tin stove and stove pipes off to one side. By the 1920s tin stoves had replaced central stone hearths in the Indian tents. Photograph by William Brooks Cabot, August 1921. (Photograph courtesy Smithsonian Institution, National Anthropological Archives, Cabot Collection WBC 1921: 30.)

Figure 5. Montagnais-Naskapi camp opposite the mouth of the Red Wine Wine River. The high hill on which the camp is situated was well known to the early Hudson's Bay Company traders in the region who called it the "Mont a Peine Portage" (Davies 1843: 79). It marks the beginning of the overland portage trail to Seal Lake, a trail followed by Dillon Wallace in 1905 and by William Brooks Cabot in 1921 and 1923. Photograph by William Brooks Cabot, August 1921. (Photograph courtesy Smithsonian Institution, National Anthropological Archives, Cabot Collection WBC 1921: 20.)



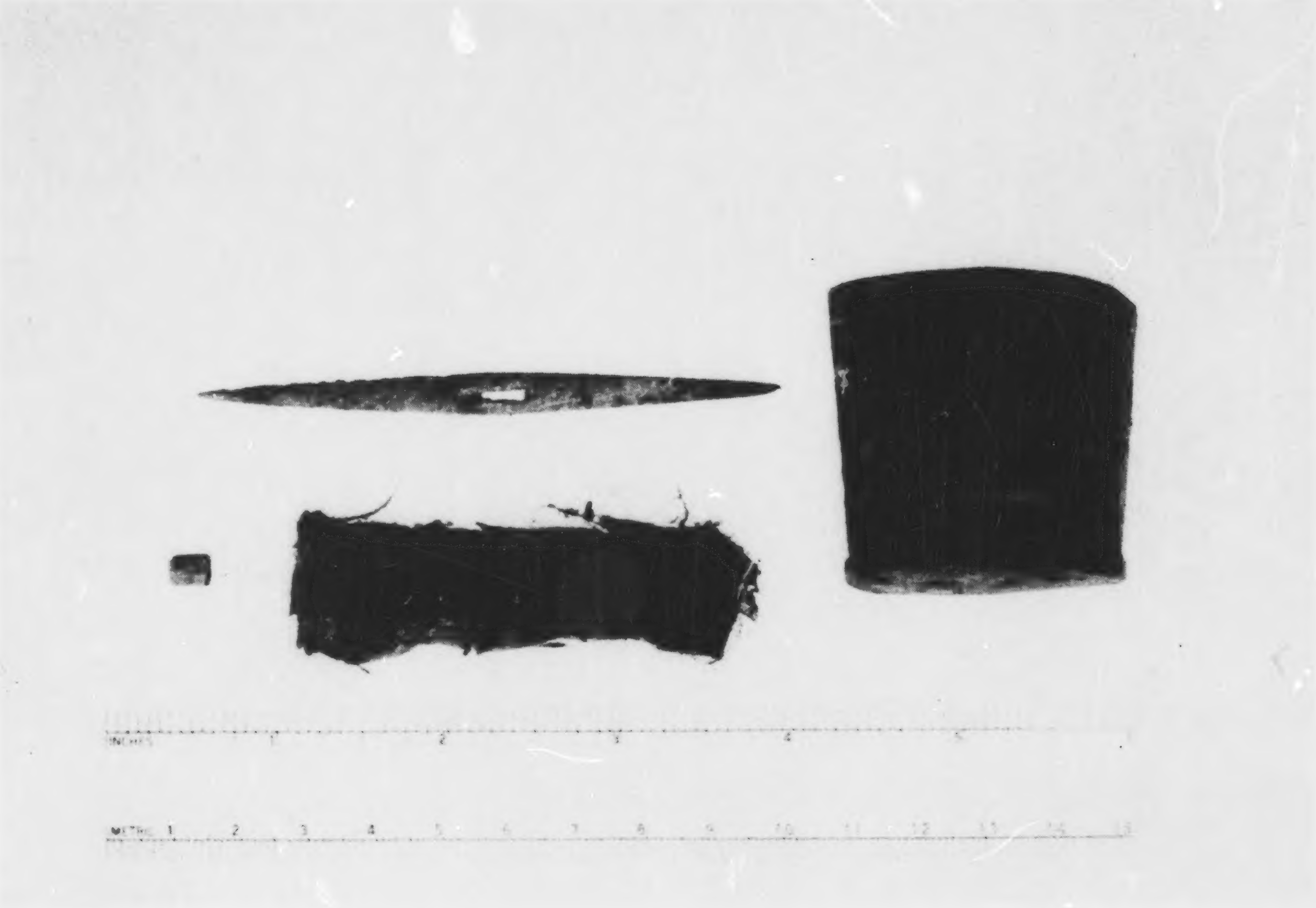


Figure 6. Artifacts recovered from the earthen-wall tent ring at the Seal Lake Narrows (GbCi-1): copper snowshoe weaving needle, portion of cut tin can, primus firing cap, birchbark bundle containing wooden matches (a small pale blue seed bead was also recovered but is not included in the photograph).

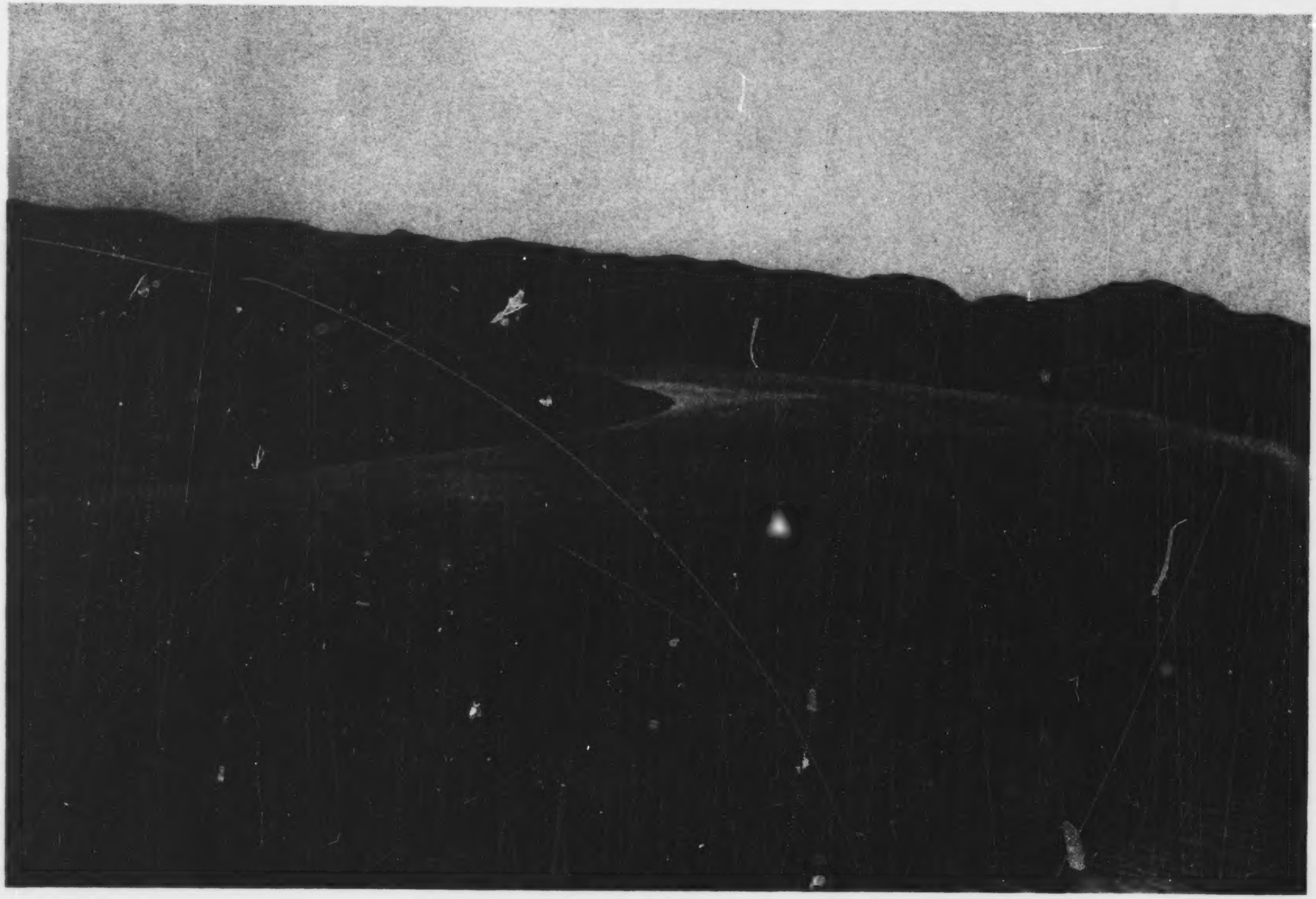


Figure 7. Naskaupi River just west of Wuchusk Lake. The dark vegetation band above the shoreline on the left shows the higher river level prior to the Churchill Falls hydroelectric project.

Figure 8. Contemporary Innu camp at Seal Lake (GcCj-1). View to southeast across the eastern end of Seal Lake toward the Narrows. Debouchement of the Naskaupi River into Seal Lake is to left.

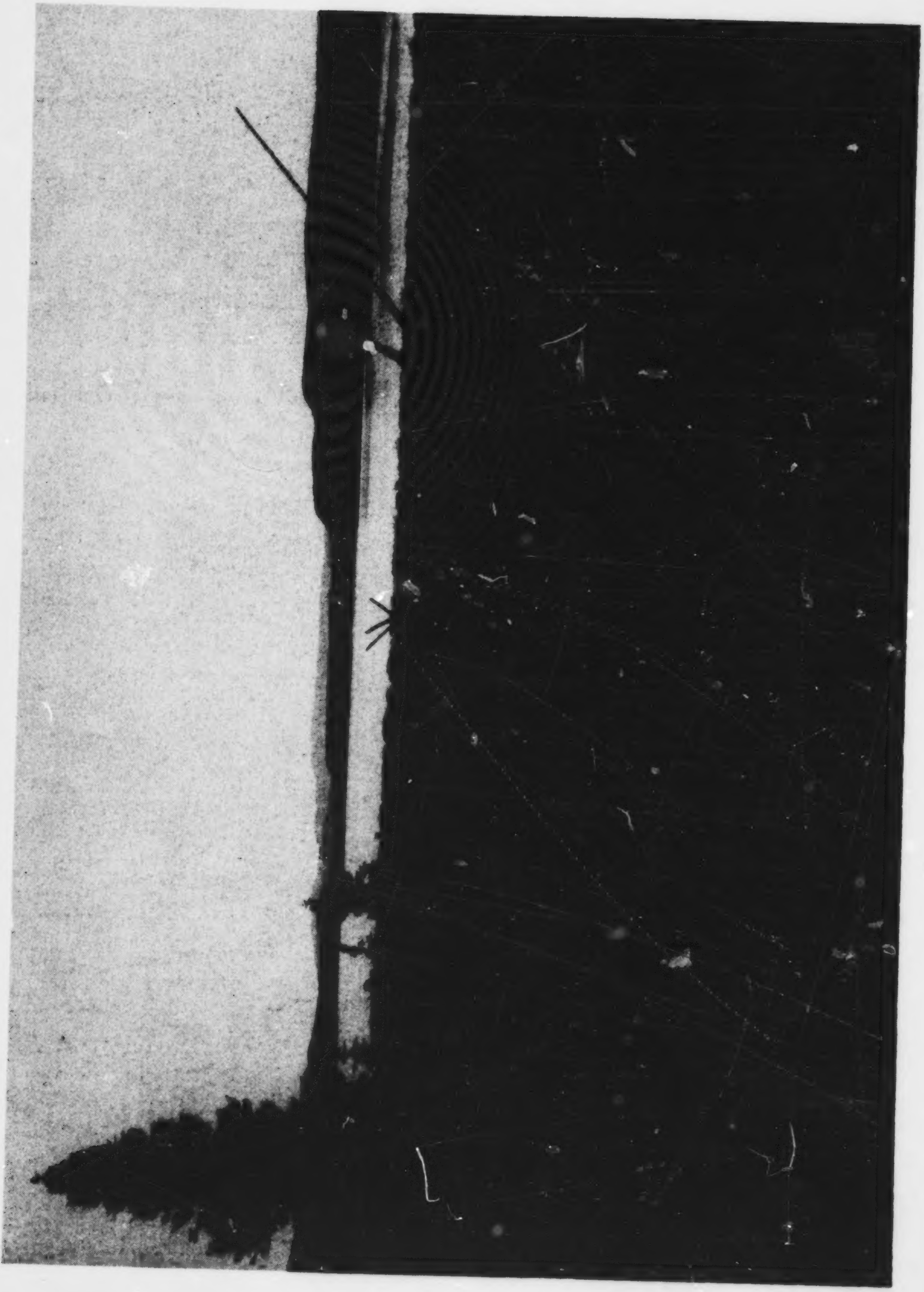
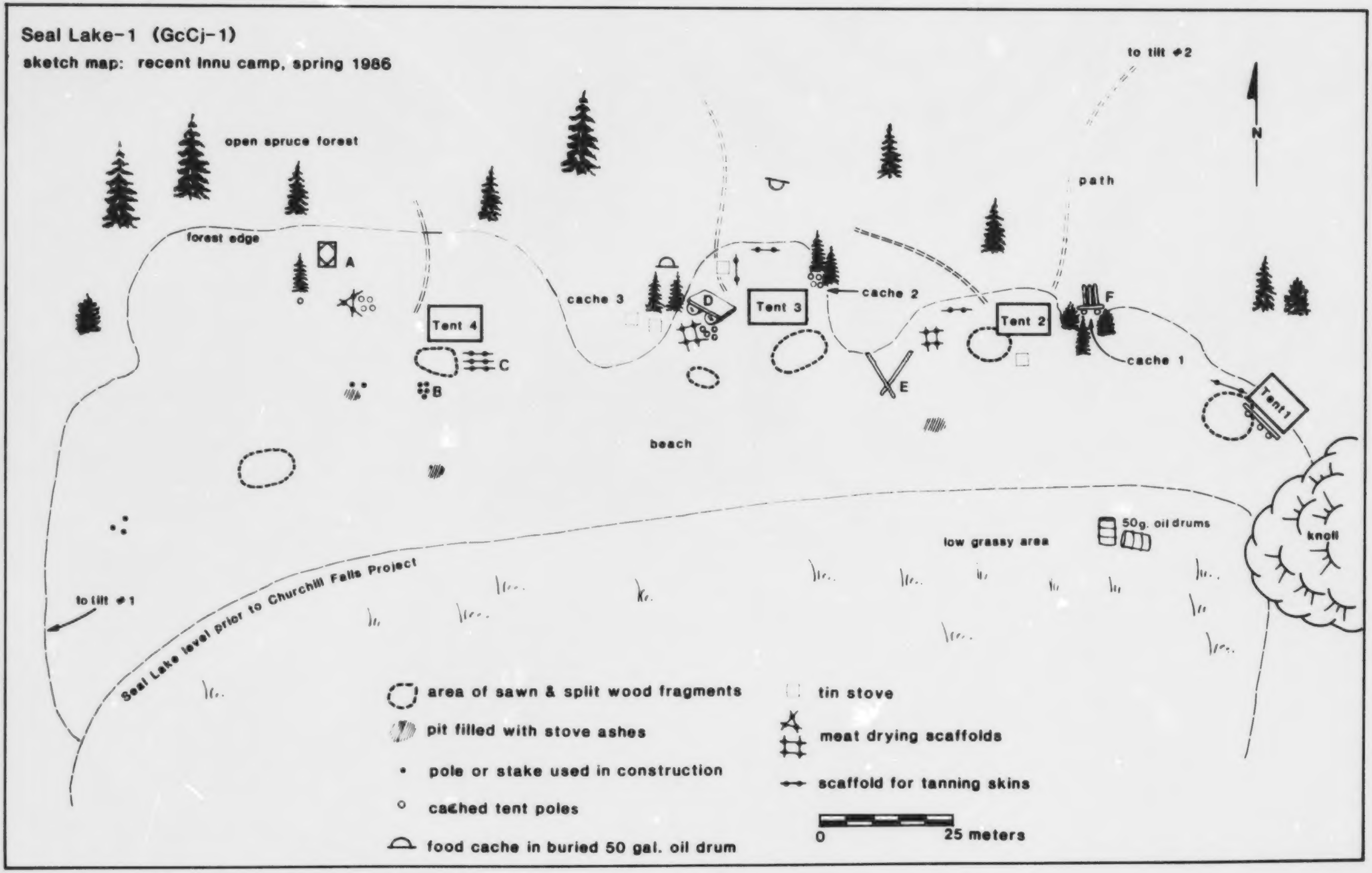


Figure 9. Sketch map of the recent Innu camp at Seal Lake (GcCj-1). Several Innu families spent the late winter/early spring of 1986 camped at this location.

Key: A. frame for stretching bear skin
B. charred tin-stove supports, site of a more ephemeral tent structure than the four principal tent sites
C. low storage rack
D. low storage scaffold containing a dozen spruce logs (next year's firewood) and a cache of the following items: tin stove pipe, canoe paddles, tin platter, crow bar, steel grates
E. poles for radio antenna
F. stumps supporting a low platform of spruce logs (next year's firewood)
Cache 1: (in tree) 3 tin stoves, 1 oil drum stove, stove pipes, plastic bucket, large camp kettle
Cache 2: (in tree) bag of 12 ga. shotgun shells (#4 load), tobacco tin, tent table, stretching boards
Cache 3: (scattered about in several trees) old snowshoes, beaver skin stretching frame, lead weight



Seal Lake-1 (GcCj-1)

sketch map: recent Innu camp, spring 1986

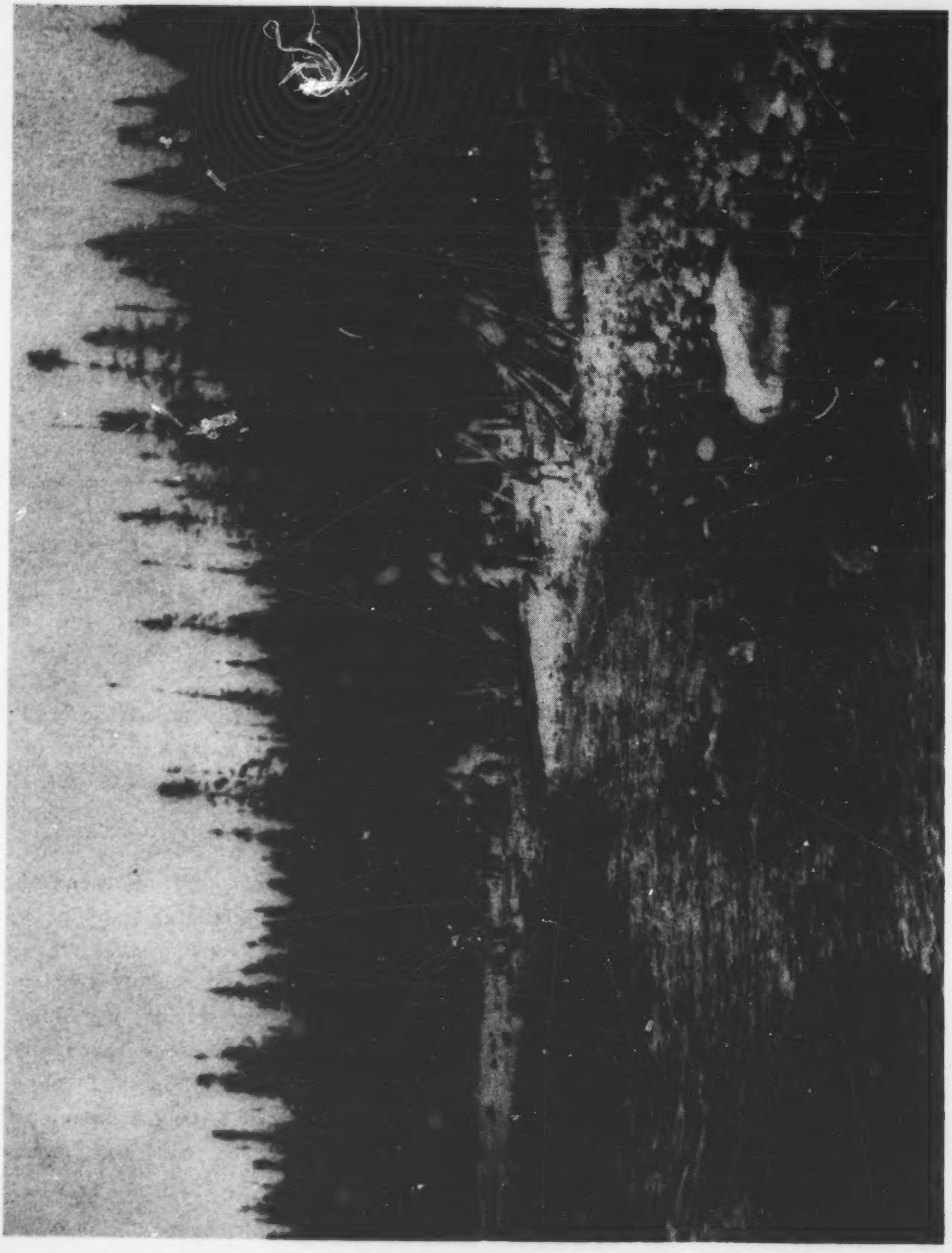
to tilt #2
N
open spruce forest
path
forest edge
A
Tent 4
C
B
cache 3
D
Tent 3
cache 2
E
Tent 2
F
cache 1
Tent1
beach
knoll
50g. oil drums
low grassy area
to tilt #1
Seal Lake level prior to Churchill Falls Project
area of sawn & split wood fragments
pit filled with stove ashes
pole or stake used in construction
cached tent poles
food cache in buried 50 gal. oil drum
tin stove
meat drying scaffolds
scaffold for tanning skins
0
25 meters

Figure 10. A-frame log meat cache, Innu camp at Seal Lake (GcCj-1).

Figure 11. Tilt belonging to Duncan McLean and Donald Blake at Seal Lake. These small log tilts, spread out along a trap line, were the only shelter used by the trappers during their winter hunt. Note the Native-style toboggan cached beside the structure. Photograph by Dillon Wallace, August 1905. (Photograph courtesy The Labrador Heritage Society, Goose Bay, Labrador.)

Figure 12. Parabolic sand dunes west of Wuchusk Lake on the north bank of the Naskaupi River.

Figure 13. View of the Montagnais-Naskapi camp on Grand Lake near North West River, July 1891. Three bark and cloth lodges, four birch-bark canoes and a stretched beaver skin are visible. The large canoe in the centre of the picture belonged to Henry Bryant who visited the camp in an effort to hire guides to take him to the Grand Falls. The cut planks and a partially visible frame to the far left of the camp suggest that a canoe is being constructed. (Photograph courtesy Smithsonian Institution, National Anthropological Archives, #72-3209.)



HAMILTON INLET AND CARTWRIGHT RECONNAISSANCE

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INTRODUCTION

Following surveys in the Seal Lake region, described elsewhere in this volume, archaeological reconnaissance was conducted in Hamilton Inlet and Cartwright during the first week of August, 1986. The purpose of these surveys was to test possible Groswater phase winter sites noted previously on Ticoralak Island, to expand surveys in Hamilton Inlet, and to make an initial reconnaissance of the Cartwright island region. Work was conducted between 30 July and 8 August during transit between Goose Bay and Port Saunders, Newfoundland. Accompanying the author were Susan Rowley of the Smithsonian Institution, Mark Allston of Trinity Bay, and Carolyn Maybee of Goose Bay. Since the results of the survey were modest and are largely unrelated to ongoing publication projects, the following account is a complete report of the data gathered.

SURVEY RESULTS

Etagaulet Point

In 1968, during our first season in Lake Melville, an ethnographic camp was found on Etagaulet Point, a rocky point at the northeastern end of Etagaulet Bay, known locally as Big Bight. Recent stone rings, tent poles, boulder duck hunting blinds, barrel staves and hoops, fuel drums, and various other ethnographic/recent materials were found scattered among the grass, weeds, and low brush adjacent to the point. Sealskin stretching frames and komatik parts were also present. We later learned that Etagaulet Point is an excellent place for spring sealing by Inuit and settlers from Rigolet.

Due to lack of time, our 1986 survey did not permit sub-surface testing or detailed mapping of the site. However, the character of the vegetation suggests that the entire unforested part of the point has been occupied repeatedly during the recent past, and probably in earlier times. In this area, designated L1, we found rectangular sod and rock wall house foundations and rectangular and circular or oval tent rings. Hearths and other small stone structures abound, but vegetation and sod cover precluded specific identification of all but a few structures. Of special note was a large cracked bedrock outcrop with a 10 cm wide fissure in which were found butchered seal, and caribou bones and teeth, and fragments of 19/20th century ceramics in a 20-30 cm deep midden. The bones represent numerous individuals and are well preserved. This is the first "rock crevice" type deposit found in Hamilton Inlet. Similar crevice bone caches have been noted at northern Labrador Dorset and Neoeskimo sites. A small sample of the bones and teeth from the Etagaulet cache was extracted and collected.

Surveys for about 100 m along the shore east of the point (L2) produced evidence of numerous tent rings and partially buried stone features, some of which, based on the size of superimposed spruce growth, are older than one hundred years. No tests were made in these structures.

Etagaulet Point might be an interesting site to excavate. It is the most prominent location on the south shore of Lake Melville and has excellent spring sealing and access to caribou hunting in the Mealy Mountains. Being halfway between the Narrows and North West River, the area has been accessible to both Indian and Inuit people and may have been important in territorial relationships between these groups.

Ticoralak Island 1

In 1968 several rock structures were identified on raised shingle beaches south of the eastern cove at Ticoralak Island 1 (Fitzhugh 1972: 86). The presence of conical cache pits, Ramah chert flakes, and mid-level site elevations suggested possible Groswater Paleoeskimo affiliation. The site was revisited in 1984, and four structures (L 1-4) were sketched and inspected (Figure 1a). L1 lies at the lowest, southern end of the exposed shingle beach and consists of a cluster of slabs having a mid-passage hearth appearance and a conical cache pit located a few metres to the west on the same beach ridge. L2, located at the highest part of the exposed beach, appears to be associated with two conical cache pits 20 m to the south of the dwelling structure, which has a mid-passage-like feature oriented at right angles to the beach ridge. Test pits in the centre of this structure in 1968 and 1984 failed to produce artifacts or flakes that might aid in its identification. L3 lies east of a low outcrop below L2 about midway up the beach series. As at the other locales, a conical cache pit is associated with this structure. L4 lies at 10.1 m elevation between L1 and L2 at approximately the same elevation as L3 and consists of two stone structures. No conical cache pits were noted at L4.

In 1986 we returned to excavate L4, which was deemed the most promising of the group. This locale was found to consist of three distinct structures (Figure 1b): Structure 1, a circular 2.5 m diameter arrangement of fire-cracked cobbles resting on top of the cobble-shingle beach surface; Structure 2, a 2.10 by 1.60 m feature of similar type; and Structure 3, a 0.5 m cluster of placed rocks. S1 and S2 occupied the rear portion of a low beach ridge; S3 was slightly in front of the L4 beach ridge crest. The similarity and placement of S1 and S2 suggests they were occupied contemporaneously, while S3 is more likely to have been a separate occupation.

Excavation of S1 revealed the structure to be composed of a 4-6 cm thick pavement of fire-cracked cobbles and slabs resting on sterile beach shingle (Figures 1a, 2). The central portion of the feature had the largest amount of fire-cracked material and was underlain by a 2-6 cm thick stratum of tan sand, probably the eroded residue of heat-spalled hearth rock. This deposit was in turn underlain by a thin layer of charcoal-stained shingle and sand matrix. Although this charcoal seemed to date the structure and was collected, the presence of charcoal mixed with soil humus around the perimeter of the structure suggested that contamination was possible from forest fires which had produced the charred stumps and patchy moss growth noted in the area. No internal rock arrangement was evident, nor any perimeter structure of hold-down rocks or tool remains. Rather than resembling axial hearths of Paleoeskimo structures, as suspected at L1 and L2, the L4 structure was reminiscent of hearth features from Intermediate Indian (Saunders complex) sites from the north-central coast (Nagle 1978). Subsequent finds of red quartzite flakes and a single broad stemmed red quartzite biface (Figure 1d) three metres to the northeast of S1 strengthen this interpretation. Structures 2 and 3 were mapped but were not excavated.

The broad stemmed point from L4 suggests several typological dating possibilities. This point cannot be considered as being Maritime Archaic, but bears some similarity to broad stemmed forms of the Little Lake complex (Fitzhugh 1972: Plate 38). Its closest resemblance, however, is with stemmed points of the David Michelin complex from North West River which is dated by elevation seriation to ca. 2200 B.P. (Fitzhugh 1972: 115, Plate 38). At 10 m elevation, L4 is roughly the same elevation as the series of Groswater Paleoeskimo sites lying between 8-12 m above sea level less than a kilometre from L4 at the north end of Ticoralak Island and dating to ca. 2400-2800 B.P. (Fitzhugh 1972: 123). Based on these dating and typological comparisons, we suggest a David Michelin affiliation and age for L4. This is the first site of this complex to be found in Groswater Bay. As this report goes to press, a charcoal sample (coniferous) from the central hearth in Structure 1 has been dated at 1850±60 B.P. (Beta-22401).

George Island 1

George Island has never been surveyed for archaeological sites and to my knowledge has rarely, if ever, been subject to scientific investigation of any sort. Local fishermen in Groswater Bay speak of it as a place containing buried pirate treasure. Since stories of blood-stained soil lured us to the large Maritime Archaic site at Rattlers Bight, our survey of George Island was begun with keen anticipation.

Survey was limited to the inner portion of the eastern cove, which receives heavy ocean swell. Perhaps for this reason few archaeological remains were found. Most of the raised beach deposits here were heavily vegetated (grass, moss, shrub, and patches of dwarf spruce), and no sign of sites, such as partially buried tent rings, were noted. The only site found was an oval tent ring structure, 2.5 by 4 m in dimension, with a central hearth. This site was located on a raised gravel beach part way out the northeastern arm of the cove at an elevation of 8.75 m above sea level. The ring was immediately below a small pond, a typical Groswater Paleoeskimo setting, and in fact flakes of Groswater chert were found in the hearth area (Figure 3). The structure is unusual for Groswater in having a well-defined enclosing ring of heavy cobbles and no discernible axial passage feature. Large, high rocks had been conspicuously placed in the gaps of the wall region at the front and rear ends of the dwelling. Overall, the site appears to have been a briefly occupied sina-oriented spring hunting camp. No tools were found, and the few flakes recovered seemed to represent a single episode of tool sharpening. Groswater designation is based solely on the presence of

Groswater chert, which is rarely found in any other type of site. Small cache features and stone alignments on the seaward bedrock outcrop may relate to this occupation, but nothing definitive was noted. Prospects for further work here are not promising.

Baird Cove 1

Doris Saunders of Goose Bay had asked us to check for "old Indian" sites at Baird Cove near the abandoned Martin and Mesher places on the south shore of Newfoundland Island opposite Dumpling Island. A cursory inspection revealed two circular boulder houses, two boulder caches, one (and possibly a second) disturbed grave, and a stone Inuit-type fox trap situated along the boulder beach outcrop 5-6 m above sea level. No detailed mapping and no excavation were done. Evidence of sod-walled winter dwellings was not noted. The impression of the site was of a small fall or spring Labrador Inuit camp dating probably to the 17th or 18th century. In form, the boulder structures resembled those of the Black Island 3 site in Hamilton Inlet.

Flat Island

Doris Saunders also mentioned that flints used to be collected from Flat Island, a small island at the south side of the harbour between Newfoundland and Independent Islands. Surveys here failed to note flints or other evidence of prehistoric activity. However, we recorded three unidentifiable features. L1 is a 5 m square sod- and boulder-walled structure from which we obtained a single piece of black mica. L2 is an apparently sterile 4 x 2 m trench with a small circular pit 4 m to the north, excavated during the past century. L3 is a shallow depression at the south end of the upper beach with a central core of boulders and some possibly fire-cracked rock, again perhaps a recent disturbance. None of these features contained flints or even suspicious quartz fragments. The island is covered with thick peat, and our investigations concentrated only on obvious surficial features.

Snack Cove 1

More substantial remains were found in the very hospitable environs of Snack Cove, loated at the southeastern extremity of Huntingdon Island. The area is known to Doris Saunders as an "arrowhead hunting" location. Several important sites were found here during our brief visit (Figure 4), including a series of three Labrador Inuit rectangular tent house locales: A1, 2 and 3. These sites are found on the flat cobble beaches at the southern extremity of the cove forming the western side of the cove. Our surveys were limited to the beaches facing Snack Cove, and other excellent survey locales were noted to the west. Bert Davis, who salmon-fishes in Snack Cove, told us of reports of finds of Inuit artifacts from graves and stone features in the area.

Each of the three locales at Snack Cove 1 consisted of sets of two tent structures (Figures 4, 5). The A1 structures were 5 by 10 m and 4 by 6 m in dimension. Each had two U-shaped hearths with hearth pavements at opposite ends of the structure, obviously for dual-family use. Hold-down rocks were closely spaced. No artifact remains were found, nor were excavations made. However, a charcoal sample was obtained from under a slab in the central hearth feature of House 1. The A2 structures resembled those of A1 but had smaller dimensions; likewise for A3 structures, which were partly covered by a large stack of spruce timbers to be used for future stage construction. These houses most closely resemble the rectangular 4 by 8 m Labrador Inuit structures known as the Sculpin Island type, which have been studied most carefully in the Nain area where they have been dated to the Early Neoeskimo Period, 15-17th centuries A.D. (Kaplan 1983: 226, 500-508). Sculpin Island type structures occur in two variants, a multi-tiered boulder walled form which sometimes contains slate artifacts of prehistoric Thule form and an absence of European trade goods, and a cobble tent ring variant that lacks slate and contains European trade goods. Snack Cove 1 structures resemble the later form, and have the U-shaped hearths also found in early historic period structures. Hence, the Snack Cove 1 structures seem likely to date in the historic period, probably in the 17th or 18th centuries.

Snack Cove 2

Snack Cove 2 was a small Ramah chert station found eroding out of a footpath where it descends from the terrace separating Snack Cove from the small cove to the east. As this material is found within the peat zone rather than on sterile sand and is located on a 20-degree slope without reference to nearby structures, the location may be a dump resulting from the artifact-hunting activity reported by Doris Saunders. Possibly a winter Dorset site exists nearby. A modified, single eared Ramah chert biface (Figure 4) of probable Middle Dorset type and a possible flake of nephrite were recovered. Although the site does not warrant further work, its presence suggests that Dorset sites, while not common in south-central coast regions, may occasionally be found. Probably the Snack Cove 2 remains resulted from artifact collecting activities in the vicinity of the Snack Cove 3 beaches, perhaps in the several former garden plots cultivated by the summer residents over the years.

Snack Cove 3

In the grassy area between Bert Davis's house and an old vegetable garden in the bottom lands of Snack Cove we found a pair of well-preserved sod-walled Labrador Inuit winter dwellings (Figure 4). These structures are of typical sub-rectangular form with lateral and rear benches and entrance tunnels. House 1 was the largest, measuring 6.8 by 4.3 m and had a 6 m entrance passage; House 2 was 5 by 6 m and had a 4 m entrance tunnel. In excellent, undisturbed condition, the houses were found to contain preserved roof timbers and carefully-laid floor paving slabs. Our several testpits recovered a small sample of artifacts from House 1, including pipe bowl and crockery fragments in a lower deposit associated with the house floor; twentieth century glass shards and nails in an upper, post-Inuit, deposit represent 20th century trash dumping. Bone preservation seems to be poor because of the sandy soils. No trace of bone middens were found outside either house, and only a single bone (seal) was recovered from the outer entrance passage of House 1. The absence of middens and sporadic artifact finds suggest that these houses were occupied briefly, perhaps for only a single winter season. It seems likely that Snack Cove 1 and 3 are components of a single settlement system, occupied by the same Inuit group. Typologically, the Snack Cove winter houses resemble Eskimo Island 3 structures, which date to the 17th century (Jordan and Kaplan 1980; Kaplan 1983: 231). However, they are smaller in size, have fewer artifacts and lack the extensive bone middens of the Eskimo Island site series. They probably represent a chronological period postdating the Eskimo Island sites, possibly early 19th century.

As a complex the Snack Cove 1 and 3 sites and the nearby seasonally distinct settlement at Baird Cove 1 extend multi-season Labrador Inuit settlement locations south of Hamilton Inlet. Although apparently briefly occupied, they provide important information on southern Inuit settlement and its relationship with Europeans. Whether occupied as way-stations used by northern Inuit groups involved in trading expeditions to southern Labrador (unlikely in terms of the proposed 19th century date and the limited amount of trade goods), or as an incipient permanent settlement expansion attempt, further study of these sites would be useful, especially in relation to Labrador Inuit sites found recently in Chateau Bay by Reginald Auger and Marianne Stopp (this volume) and in Red Bay by James Tuck. It now seems likely that Labrador Inuit sites will eventually be identified elsewhere in intervening regions between Hamilton Inlet and the Strait of Belle Isle.

SUMMARY

Our brief survey in 1986 was limited to selected locales in Hamilton Inlet, Groswater Bay, and the Cartwright islands. Opportunities for survey south of Cartwright were not available. On the basis of our limited work, further surveys should be conducted in Cartwright, and an effort should be made to survey the essentially unknown region between Cartwright and Chateau Bay. A brief visit at Battle Harbour confirmed the continuing erosion of a large multi-component Groswater-Paleoeskimo site previously reported and suggests the likelihood of other important sites with possibilities of organic preservation. All collections obtained on this survey have been deposited at the Newfoundland Museum.

ACKNOWLEDGEMENT

I wish to thank the Newfoundland Museum and the Smithsonian Institution for financial support, and field companions Susan Rowley, Mark Allston, and Carolyn Maybee for their efforts. Dosia Laeyendecker processed the charcoal samples which were run by Beta Analytic. Linda Hanna processed the field data, and Julie Perlmutter prepared the illustrations.

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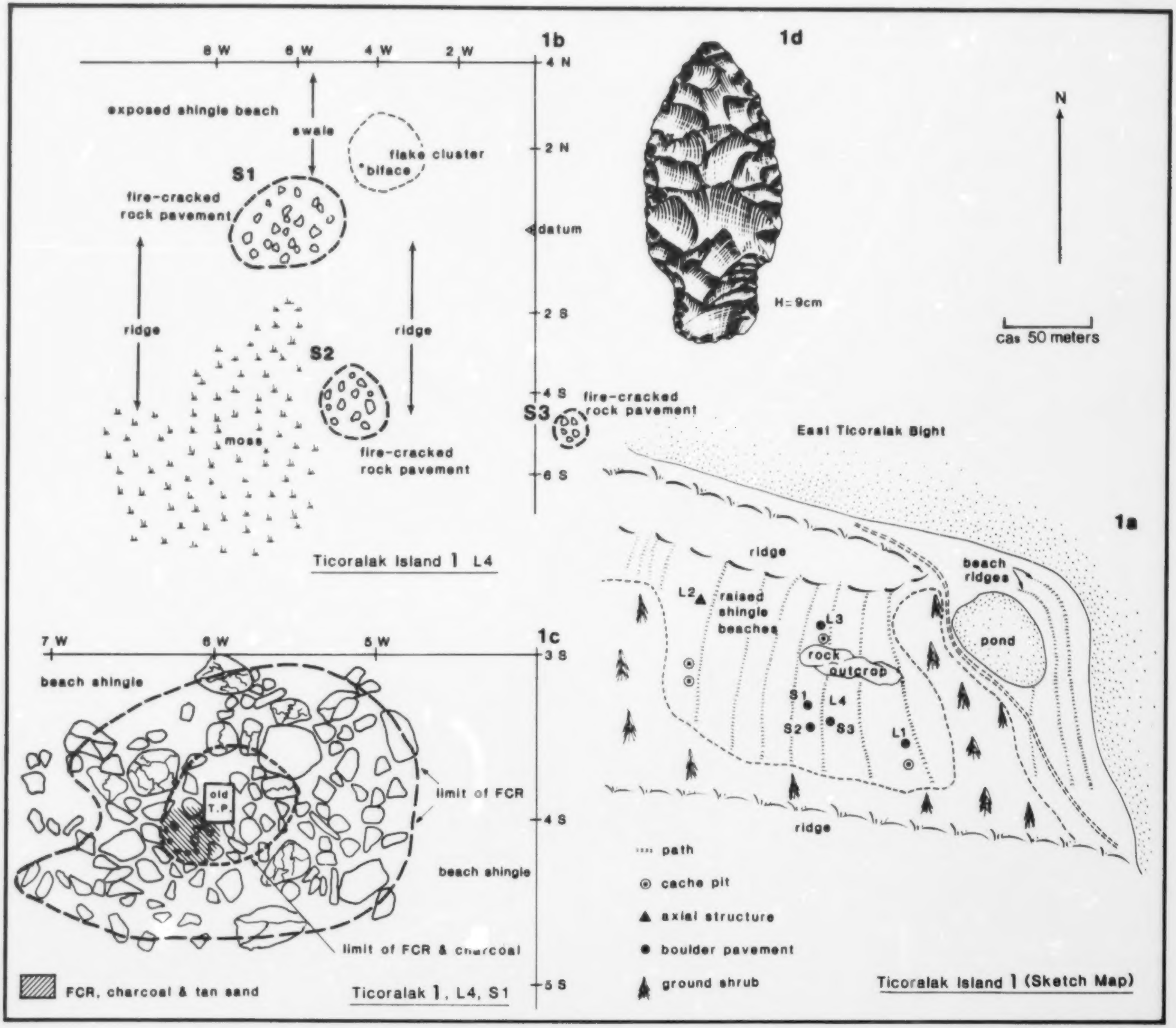
1b
8 W
6 W
4 W
2 W
4 N
2 N
datum
2 S
4 S
6 S
exposed shingle beach
swale
flake cluster
biface
S1
fire-cracked rock pavement
ridge
ridge
moss
S2
fire-cracked rock pavement
S3
fire-cracked rock pavement
Ticoralak Island 1 L4
1d
H=9cm
N
ca. 50 meters
East Ticoralak Bight
1a
ridge
beach ridges
L2
raised shingle beaches
L3
rock outcrop
pond
S1
L4
S2
S3
L1
ridge
path
cache pit
axial structure
boulder pavement
ground shrub
Ticoralak Island 1 (Sketch Map)
1c
7 W
6 W
5 W
3 S
4 S
5 S
beach shingle
old T.P.
limit of FCR
beach shingle
limit of FCR & charcoal
FCR, charcoal & tan sand
Ticoralak 1, L4, S1

Figure 1. a. Tikoralak Island 1 site map b. L4 excavation area c. Structure 1 plan d. stemmed biface

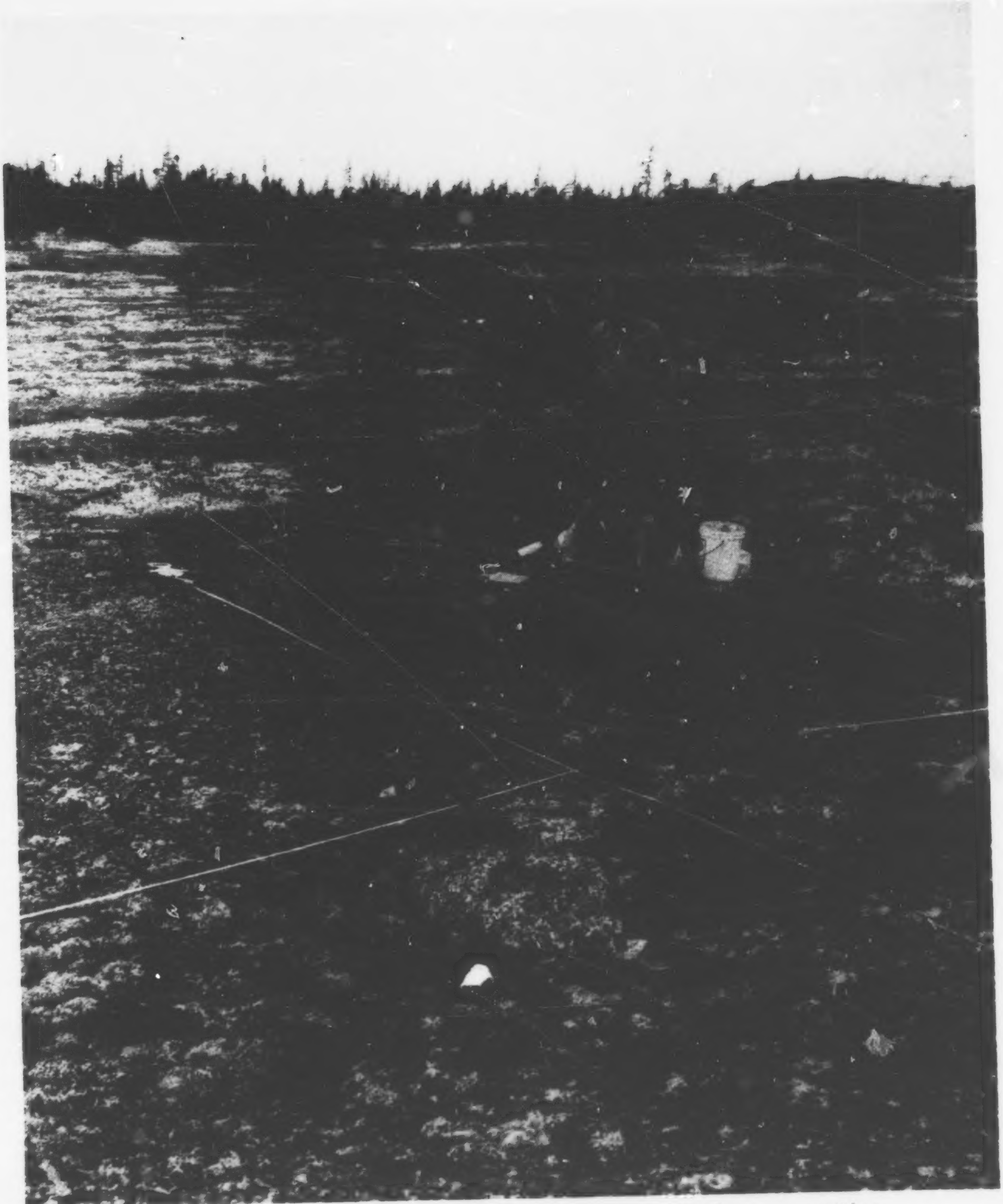

Figure 2. Tikoralak Island 1, L4, Structure 1 before excavation. View to north with Susan Rowley, Carolyn Maybee and Mark Allston.

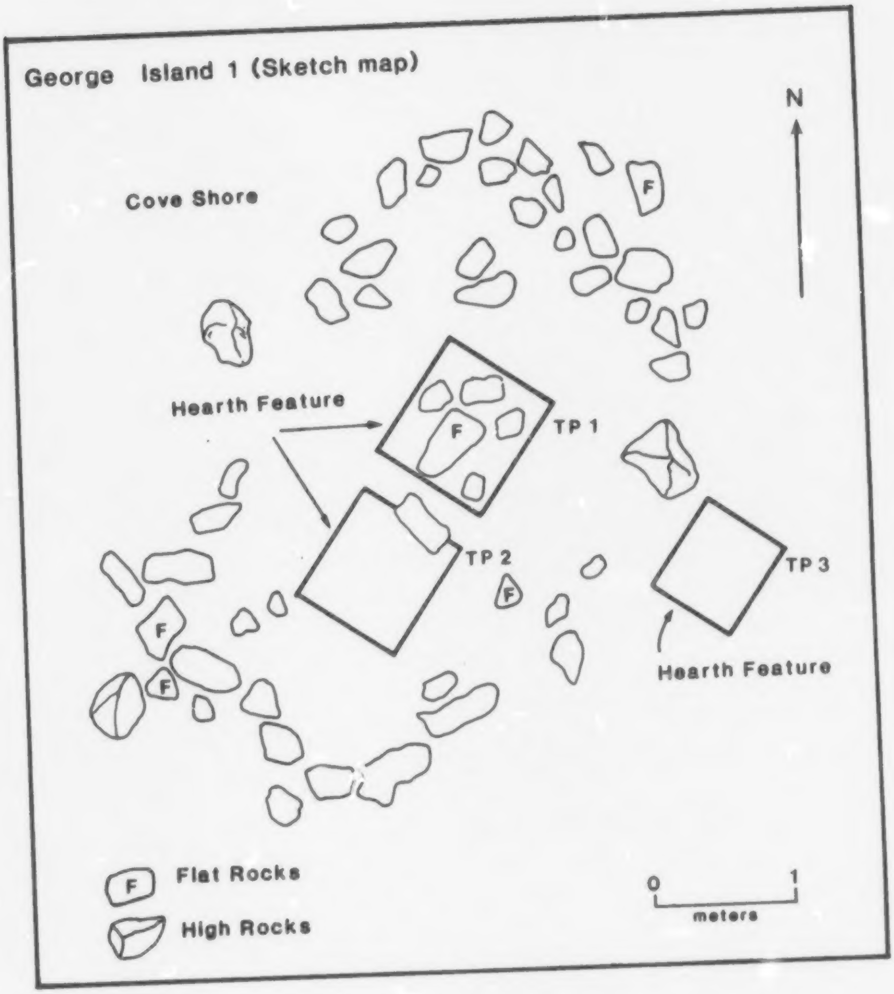
George Island 1 (Sketch map)
N
Cove Shore
Hearth Feature
TP 1
F
TP 2
TP 3
Hearth Feature
F
F
F
F
F Flat Rocks
High Rocks
0
1
meters

Figure 3. George Island 1 site plan. View to southeast.

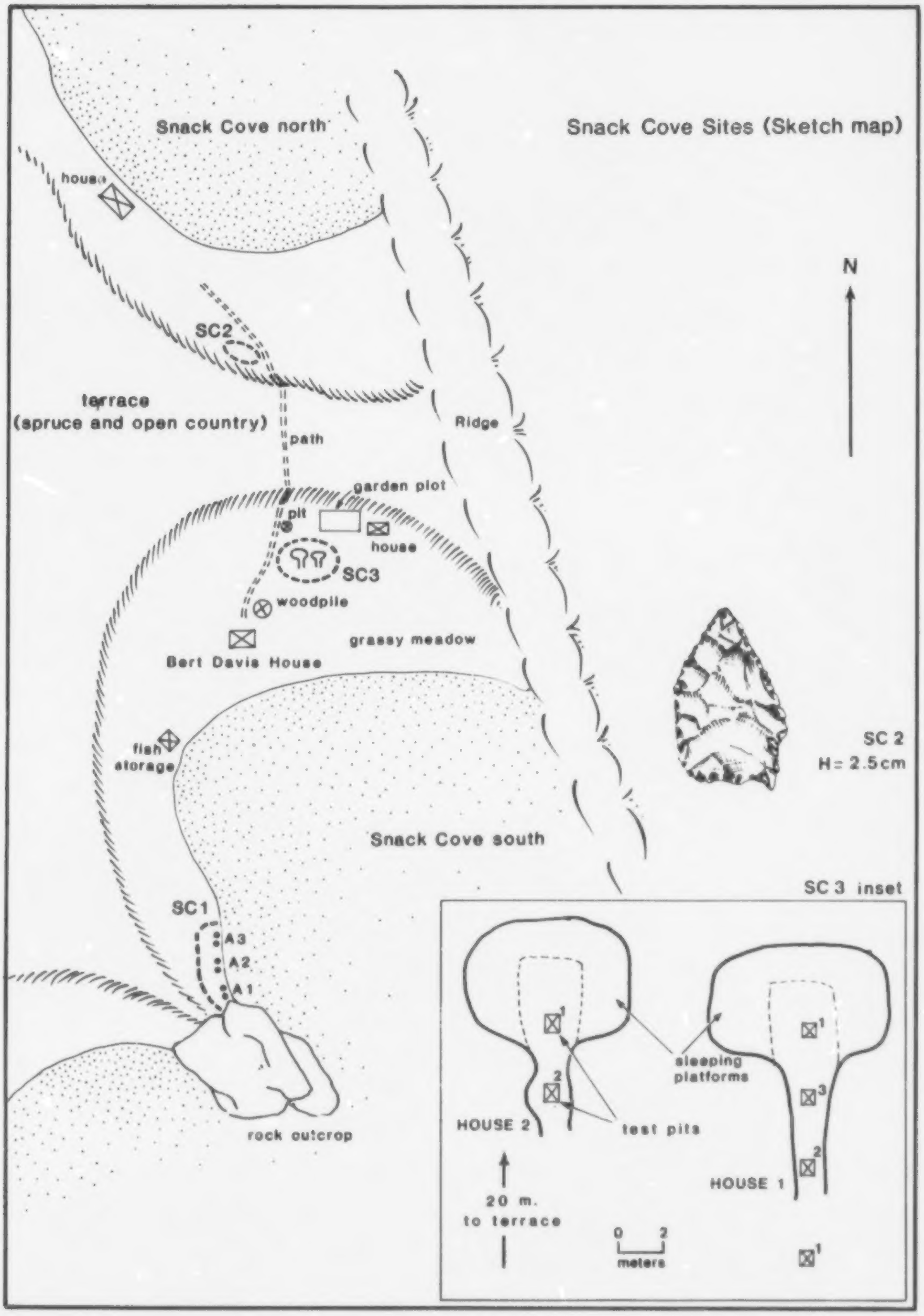
Snack Cove north
house
Snack Cove Sites (Sketch map)
N
SC2
terrace
(spruce and open country)
path
Ridge
garden plot
pit
house
SC3
woodpile
grassy meadow
Bert Davis House
fish storage
SC 2
H= 2.5cm
Snack Cove south
SC1
A3
A2
A1
rock outcrop
SC 3 inset
1
2
sleeping platforms
HOUSE 2
test pits
1
3
2
HOUSE 1
20 m.
to terrace
0
2
meters
1

Figure 4. Snack Cove 1, 2, 3 survey area, and Snack Cove 2 artifact.

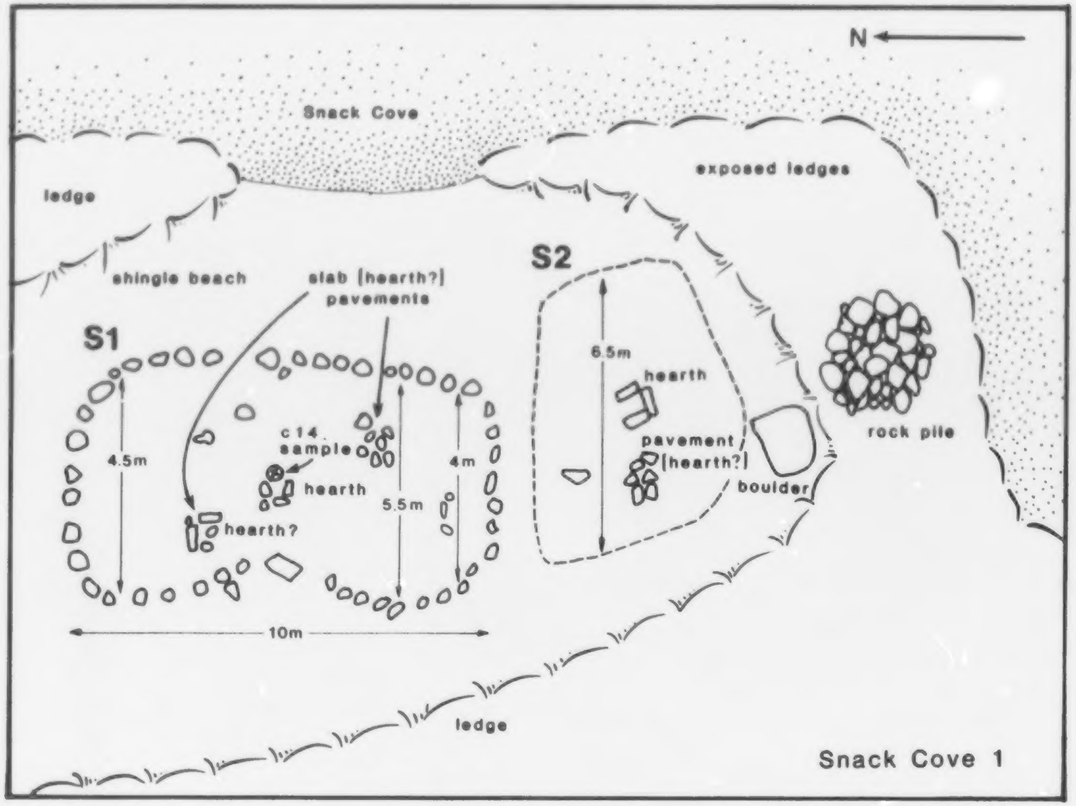
N
Snack Cove
ledge
exposed ledges
shingle beach
slab [hearth?]
pavements
S1
S2
6.5m
hearth
pavement
[hearth?]
boulder
rock pile
c14
sample
hearth
4.5m
4m
5.5m
hearth?
10m
ledge
Snack Cove 1

Figure 5. Snack Cove 1, A1, Structures 1, 2.

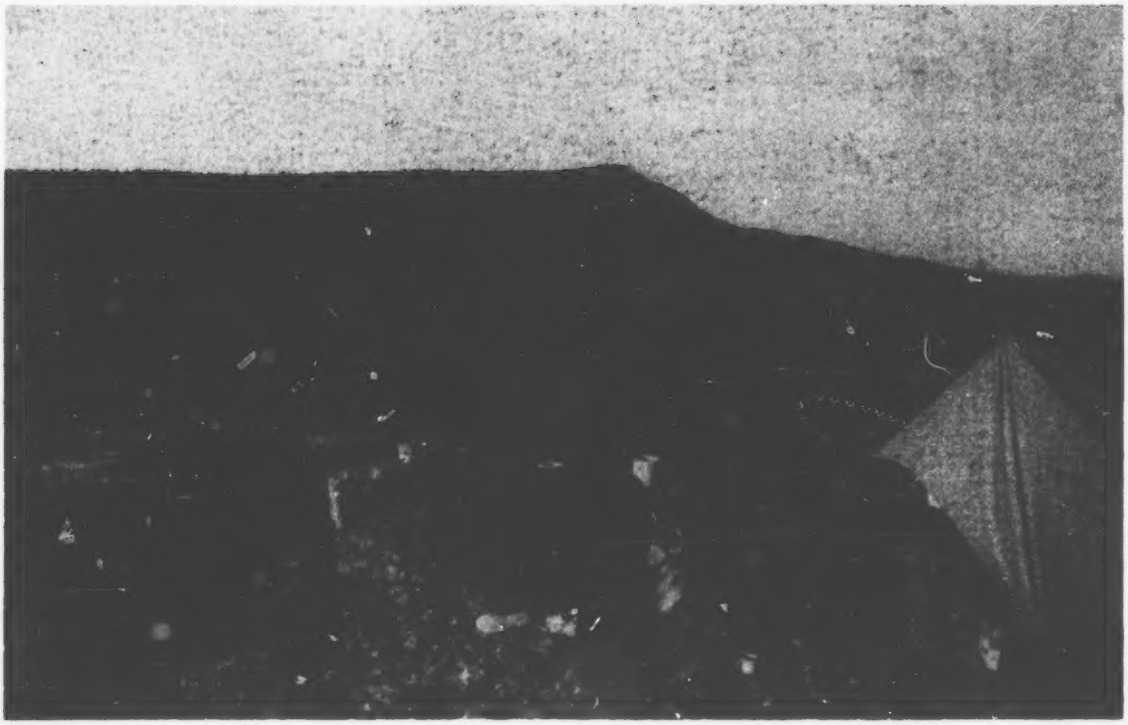

Figure 6. Northwest Corners site from 1985 survey [see 1985 Annual Report]. View to east showing L1 locality at centre left. When W.D. Strong visited this locality (confirmed by correspondence with his field notes and photographs in the Smithsonian's Anthropological Archives) forest fire had burned most of the vegetation off this site area.

Figure 7. Northwest Corners 2 site from 1985 survey, L2 area. View east.

Figure 8. Northwest Corners 2 site from 1985 survey, L3 area. View north.

A LATE 18TH CENTURY SETTLEMENT IN SOUTHERN LABRADOR
CAPTAIN GEORGE CARTWRIGHT'S "STAGE COVE"

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INTRODUCTION

This paper compares a journal account of life at a late 18th century settlement in southern Labrador with the results of the first archaeological investigation conducted at the site. Captain George Cartwright's famous Labrador Journal (1792) and the date obtained from the excavation of building and midden remains at Stage Cove, one of his late 18th century fishing, sealing and fur trapping settlements in the Strait of Belle Isle, are used in conjunction in an attempt to reconstruct life at this settlement.

Cartwright records administrative and economic activities that he and his servants undertook during their seasonal occupation of the site from June 1771 - October 1776. These often vague accounts of building construction, sealing and trapping are compared with the results of the archaeological investigation in order to evaluate the Journal record and offer a more comprehensive interpretation of life at the settlement.

This first investigation of a late 18th century southern Labrador "frontier" settlement inhabited by British and Irish settlers as well as a few Inuit and Indians, includes an analysis of artifacts, architectural remains and faunal remains. Cartwright's dwelling house, the site structure which has the greatest amount of documentary evidence of any of his buildings, was excavated to the greatest degree and is therefore the source of much of the archaeological data. The excavation of a midden and four other architectural features provides the balance of the data. Comparisons with the archaeology of this multi-purpose, resource exploitation settlement in southern Labrador with artifacts and building remains of other sub-arctic and north Atlantic settlements of the period, provides the regional context for this study.

In May 1986, following approval of my thesis proposal, I agreed with the faculty of the Memorial University, Anthropology Department to concentrate on an investigation of the architecture of Cartwright's buildings for my thesis. Known as Stage Cove, the site is located near Cape Charles in the eastern end of the Strait of Belle Isle approximately 80 km east of the 17th century Basque whaling site at Red Bay.

RESEARCH GOAL

The archaeological remains of the frontier architecture which Cartwright and his site's servants developed is the main focus of the research. I will also discuss all the features and artifacts that represent the archaeological remains of the Stage Cove settlement, whose occupation is documented for a few years in the 1770s.

The major part of Cartwright's frontier architecture is represented by the remains of his household. Of any of his buildings, the dwelling house has received the greatest amount of documentary accounting both by Cartwright in his Journal and by 20th century visitors. Dr. John Kennedy, an anthropologist from the Department of Anthropology at Memorial University, had visited the site prior to the 1986 fieldwork. He described to me what he believed to be the foundation of a long, rectangular structure with external and internal wall divisions, barely visible in a sand/gravel blow-out landscape (1986: personal communication). Prior to Kennedy, Townsend, a medical doctor and naturalist from New England, visited the site on 30 July 1906 and described the feature as well. His description follows:

> Here is the evidence of an ancient house site. There is a small depression in the ground, a number of large stones, some of them flat, bits of what might have been mortar, and some portions of rough bricks, some red, some yellow, some particoloured. The clay of the red bricks is rough, with small contained pebbles...On either side of this depression, and extending back some thirty paces, two low parallel mounds of earth overgrown with curlew berry and reindeer moss can be dimly traced. These low earthworks, not over a foot high, are nine paces apart, and a flat gravel floor, moss-covered, separates them. The end of one of them turns squarely at right angles, and extends three yards in front of the depression where the bricks are found. (in Story 1980: 10,11)

Considering this description, as well as Cartwright's Journal accounts of his house, which this feature presumably represents, this feature seemed to be the best on on which to concentrate at this time.

In broad terms, I will try to reconstruct the living and working conditions of the site's inhabitants through analysis of the site artifacts and features representing the buildings. Since Cartwright describes building a variety of structures at the site in order to house his servants and conduct his mercantile activities, the investigation of these structures might not only reflect building technology and architectural design, but also seasonal economic and social activities. Architectural comparisons with other similar sites will be undertaken as part of the thesis research.

HISTORICAL REVIEW

Born in 1739 in Nottinghamshire, England into a once wealthy family, Cartwright's first career choice was the army. Through active service in India in the 1750s and Germany in the 1760s he advanced to a captain's rank. He made two visits to Newfoundland in 1766 and 1768 during which he journeyed into the northeast interior of the Island with his brother, Major John Cartwright. John Cartwright, an official in the administration of Governor Hugh Palliser, was directed by Palliser to attempt to establish communication with the surviving Beothuk Indians, and George Cartwright accompanied him during these attempts. These initial journeys to the New World, coupled with a lack of career prospects in a peacetime army, considerable personal debt, a love of hunting, and an interest in Indians and Inuit, persuaded Cartwright to choose a second career as a merchant-trader in Labrador. In partnership with other merchants or relatives, Cartwright spent sixteen years sealing, fishing and trapping in southeastern Labrador in the company of British, Irish and Newfoundland labourers, fishermen and tradesmen. On occasion, especially in his early years in Labrador, he also traded with or employed a few Inuit and Indians.

Between 1770 and 1786, he recorded his mercantile activities and relations with Inuit and Indians in his journal, A Journal of Transactions and Events During a Residence of Nearly 16 Years on the Coast of Labrador, published in 1792. In the journal he records his observations on weather conditions, daily activities, business transactions and in excessive detail his love for hunting and other sporting pursuits. However, the descriptions of the construction of the buildings on his sites, as well as his servants' trapping, fishing and sealing activities, are generally vague.

He and his servants lived at Stage Cove on a full time basis from June 1774 to May 1775. In addition to this period, they also used the site for resource exploitation activities on a part-time basis from June 1771 to June 1774 and from May 1775 to October 1776. In the winter they netted seals and trapped furs, and in summer fished for cod and salmon. Occasionally they also traded with Inuit and rarely with Indians (Cartwright 1792, Vol. 1: 119,142, 246,285; Vol. 2:8-11,17,18-26). Throughout the year they hunted caribou, bear and sea and shore birds (Vol. 1: 128,196; Vol. 2: 12,57,61).

Although this economic activity took place in relative isolation, Stage Cove was still linked with international economic activities via yearly supply ship visits from Britain, Newfoundland or Quebec plus the occasional visit from a British naval vessel (Vol. 1: 283; Vol. 2: 16). All of his supplies were traded for, or purchased with the profits from whale bone, seal oil, pickled salmon, dried cod and furs (Vol. 1: 151,282; Vol. 2: 11,18,26,44).

As Stage Cove is located on the relatively treeless outer coastal edge of Labrador, building materials such as timber and clay were rafted to the site from the heads of nearby inlets approximately 10-15 miles to the west (Vol. 1: 129; Vol. 2: 11). According to Cartwright's journal, his dwelling house had a wooden chimney resting on a brick base. The house was divided into a kitchen, dining room, six bedrooms and a hallway, and measured 70 ft. x 25 ft. (Vol. 2: 24). A shoremen's house, a married servant's house, a carpenter's house and a cooper's shop are also mentioned, though no dimensions or location descriptions are included. In addition, the building of the stage, a storehouse, a house for the sealers, fishing flakes, pens for domestic animals and a fenced garden are also briefly described (Vol. 2: 14,40,27,30). (Note: these dimensions remain in Imperial measurements as given in the Journal.)

FIELDWORK

Following the granting of Archaeological Research Permit 86-7, field research for the Stage Cove Project was conducted from July 5, 1986 to September 10, 1986 by two full-time assistants, one part-time assistant and myself. The field work consisted of surveying, mapping and partially excavating the area assumed to be Captain George Cartwright's late eighteenth century settlement at Stage Cove. The site is located on a small, relatively exposed peninsula approximately midway between the inner bays and the outer coast islands.

The cove is located on the northeast side of White Bear Point, 8 km west of the present seasonal community of Cape Charles, on the north shore of the Strait of Belle Isle. Four of the site features, three of which represent building foundations, are positioned on a low, relatively level ridge that comprises part of an isthmus joining White Bear Point to the mainland. Two of these overlook Stage Cove and the three others, none of which have visible building foundation remains, are positioned along the shore edge. The original site grid, measuring 105 m north-south by 95 m east-west, was a provisional one established early in the field season on the basis of the positions of the initial four features (see Figure 1).

This grid proved to be too small to contain the shore edge features located later in the field season. The total site area, as bounded by the location of the seven features, eventually covered an area 200 m on its north-south axis by 150 m on its east-west. It actually may be larger, but only future research will be able to determine this.

The site terrain is relatively flat, although a few small gullies break the fairly level topography of the isthmus. The gullies are generally oriented east-west, and ascend in elevation from the east, or Stage Cove side, towards the west, or White Bear Sound side.

Upon arriving at the site, we quickly noticed surficial evidence for a number of historic structures. This evidence took the form of soil, brick and rock alignments both above and below the surrounding surface, lush grassy spots, and items of historic material culture lying on the ground surface. Some of those alignments and artifact concentrations were clearly archaeological features representing structural remains. It is the remains of those features that were mapped, photographed and partially excavated.

The largest of these features, defined by 2 parallel rows of soil and rock and a substantial brick and cobble-lined depression, measured approximately 25 m by 11 m overall. The brick-edged depression positioned at the feature's east end and measuring approximately 3 m in diameter, was obviously a chimney foundation. These alignments of soil, rock and brick, designated as Feature 1, were excavated to the greatest degree of all the site features. Documentary detail, combined with the large size and relatively undisturbed state of this feature, made it the best source for providing architectural data.

Excavation of this feature consisted of various combinations of 1 x 1 m and 1 x .50 m units placed on a subjective basis at various locations within and around the feature (see Figure 2). This was done in order to obtain as much architectural and artifactual information as possible during the field season. Nine 1 x .50 m units were either located in the chimney area or positioned to bisect the parallel rows of raised soil and rock. These parallel rows are part of the north and south wall foundation remains. Besides square and rectangular excavation units, two trenches were excavated. One trench, measuring 11.5 x .50 m, bisected the long axis of the feature while the second measured 3 x .50 m and was positioned parallel to the long axis. This second trench bisected a 1.5 m diameter depression in the east end of the feature. A large 2 x 2.5 m unit in the feature's west end was also excavated, and a number of informal, shovel tests were placed in various locations around it. Finally, a coring device was employed on numerous occasions in order to investigate the soil stratigraphy. This stratigraphic coring procedure was conducted on a non-systematic basis in every site feature as well as in a multitude of locations around the site.

Similar to Feature 1, Feature 2 was defined by rock and brick alignments as well as historic material culture concentrations. This feature, like many of the others, was also marked by the presence of lush grass and tall berry bushes within and around the feature's boundaries. This was in contrast to the shrubs, caribou moss, short berry bushes, such as crowberry, and stunted trees that comprised most of the site vegetation. The field work conducted in this feature which measured approximately 14 x 12 m consisted of one 1 x 1 m excavation unit and the non-systematic surface collection of all items of historic material culture.

The surface collection was deemed necessary as a number of unauthorized holes had been dug within this and other features prior to the arrival of the Stage Cove excavation crew. Some of the holes seemed no more than a few years old while others were clearly 'historic', and many items of historic material culture were strewn about them. I decided that this damage to the site had to be addressed by surface collecting as well as clearly indicating to local people who visited the site the difference between 'pot-hunting' and professional archaeology. Although these artifacts from a disturbed cultural context will provide less information than those from our formal excavation and shovel test units, they will still be useful for determining general characteristics of the artifact assemblage for the site. They also provided us with a preview of part of the range of material culture and cultural stratigraphy that we were later to encounter in our formal excavation units.

Feature 3, located on sloping ground and measuring approximately 4 m in diameter, was defined by a concentration of lush grass and historic artifacts strewn about a hole of the type described above. A 1 x 1 m excavation unit and the surface collection of artifacts comprised the work in this feature.

A somewhat pentangonal alignment of rocks and raised earth, measuring approximately four metres across, with a patch of lush grass outside this rim, defined Feature 4. The field work in this feature consisted of a 1 x 1 m excavation unit and a shovel test hole in the grass patch.

An unusual concentration of vegetation defined Culture Feature 5. This vegetation was located along a portion of the cove's shore edge, and consisted of lush grass and a green, leafy plant tentatively identified as "alexander", a plant that can be used in salads or as a boiled vegetable (William Fitzhugh; local informants, August 1986: personal communication). This vegetation concentration, measuring approximately 4 m north-south by 2 m east-west, was positioned in a notch on the landward edge of a slab bedrock ledge, a ledge which seemed suitable for building flakes and/or other fishing-related structures. Excavation within a 1 x .50 m excavation unit, and numerous probes with the coring tool in the vegetation area, comprised the field work for this feature.

Another grassy, shore-edge area of slab bedrock and boulder concentrations similar to the above and measuring approximately 30 m north-south by 10 m east-west, was investigated via a 1 x 0.50 m excavation unit, numerous shovel tests and by probe tests. A specific locale within the boundaries of this feature, defined by a substantial concentration of fragmented brick and pieces of cut, broken and twisted wood, pitch, and lead pieces, was given the designation of Feature 6. However, since some of the historic material was clearly on the bedrock shore edge, while additional material was located further inland, I have given a provisional designation of Feature 7 to the shore area. Based on the recovered artifacts this areal division also seemed necessary, as the shore area produced our only clear evidence of aboriginal presence at the site in the form of a few stone tools.

SUMMARY OF FIELDWORK/INITIAL DATA ANALYSIS

Seven features representing structural remains and/or late 18th century occupation and refuse disposal were investigated at Stage Cove. Approximately 1000 artifacts were recovered, including about 500 nails, numerous bottle, lantern and beverage glass fragments and pieces of ceramics. The balance of the artifact assemblage included gun flints, various iron and copper items, organic material such as leather, feathers and a small quantity of faunal material. Within this artifact assemblage, nails and glass fragments comprise the majority. A few special artifacts such as a surface mounted door lock, a key, a shoe with heel, and a hammer head were also recovered. The presence of a few pieces of retouched chert and 149 trade beads supports Cartwright's accounts of employment of, and limited trading with, Inuit and Indians at the site. Soil, charcoal and wood samples from the structure remains were collected, and the site features were mapped and photograped with the two project cameras, using color slide and black and white film.

The faunal material recovered has been sent to the University of Toronto faunal labratory for analysis. A number of small and large mammal species seem to be represented, as well as some avian species. Analysis of the wood samples in order to determine tree species, will shortly be undertaken by technicians at the Canadian Forestry Service labratory in St. John's. Reports on this analysis should be available early in 1987.

Analysis of the soil and charcoal samples will be undertaken depending on priorities and on expenses. This avenue of research, along with all the rest described in this report, will be pursued in consultation with my supervisor Dr. Stuart Brown, and with other appropriate faculty members in the Anthropology Department. I am also continuing with my documentary research into Cartwright's activities at Stage Cove in particular and in the historic context in general. This research is being facilitated by discussions with various faculty members.

Certain information in Cartwright's Journal suggests further directions for investigation into the style of the buildings. For example, Cartwright mentions that two British naval vessels, the Nautilus and the Sandwich, were anchored in Stage Cove for brief periods of 1774. If the ship's log or captain's log for those ships still exist, then they might contain descriptions of Cartwright's buildings. However, my preliminary inquiries with the Public Record Office in Britain have not proven too fruitful in this regard. The only items that the Captain and Master of the Nautilus thought worthy to record are the brewing of spruce beer and the opening of casks of beef.

PRELIMINARY INTERPRETATIONS

Although artifact recovery and architectural data from the various features varied in quantity and quality, based on artifact style I think it can be safely assumed that most, and probably all the features, represent a single contemporaneous late 18th century occupation. In general terms this preliminary conclusion is supported by the overall compatibility of the site's archaeological record with Cartwright's descriptions of the number and function of certain site buildings, and their associated material culture inventory. In specific terms, there is often a good match between the archaeological data and Cartwright's building descriptions and dimensions.

The presence of coarse brown earthenware, salt-glazed stoneware and ceramic fragments known as creamware, common in the 1770s through 1790s plus what I have tentatively identified as pearlware, common from the 1790s onward, supports the documentary dating of the site. This date range is further supported by what I have tentatively identified as both hand and machine cut nails in the assemblage. The former are common up to and during the late 18th century, with the latter introduced post 1790s.

Structural features

With regard to specific features, Feature 1 is very probably Cartwright's dwelling house, based on the relatively close match of the outside and inside dimensions recorded in the journal and in the ground. The dimensions in the journal are 70' x 25', with a 24' square kitchen and a 24' x 16' dining room, plus bedrooms and a passage. The archaeological dimensions from the outside edges were 78' x 28', with remains of an interior wall approximately 24' west of the east end of the feature. This interior wall is probably part of the dividing wall between the kitchen and dining room, although it might relate to some kind of hearth area enclosure.

The discrepancy in the documentary and archaeological dimensions of the feature may be due to interior versus exterior measuring points, or to later additions to the structure. Further analysis of the data should clarify this discrepancy.

Other archaeological evidence in support of this feature's preliminary interpretation is the verification of the single doorway as described by Cartwright. This is indicated by the gap in the south wall, the substantial quantity of tight-fitting cobbles in this location and the finding of a key and surface mounted door lock on both sides of this gap. The large, mason-built chimney at the east end of the house has also been verified through excavation.

Although the bricks used in the chimney could have been imported, they lacked an identifying stamp or maker's mark that mass-produced bricks might be expected to have. In addition, the presence of a mason during building construction and the references Cartwright makes to transporting sand and clay prior to the construction of the chimney, suggest that some, if not all of the bricks were made in Labrador.

Finally, the yellowish-brown, paper-like material recovered from the southwest end of the feature may be either the wall paper or 'pitched' roofing paper material he used as a building material.

Features 2 and 4 represent structural remains, though their specific function is not clear at this time. From only a single 1 x 1 m excavation unit, Feature 2 produced the largest quantity of clay pipe fragments, 46 out of a total of 97. Although this fact could simply be the result of our generally small site sample, or the effect of differential breakage characteristics, the large number of pipe fragments suggests that the structure was inhabited by a number of individuals, or possibly used as a store house. In support of a dwelling house function versus a store house one, the artifacts from this feature included fragments of coarse earthenware. These are not generally considered an aboriginal-European trade item which one would keep in a store house, or the type of container that products from sealing, fishing or fur trapping would be stored in for shipment back to market. Although this pottery sample was recovered from the backdirt of a number of potholes within the feature, and therefore not in situ, its general location implies an association with it and suggests use of the original vessels by the inhabitants.

Few fragments of this coarse earthenware were recovered from Feature 1, the feature representing Cartwright's house. Since this type of pottery is generally not considered a high-status indicator, its abundance in Feature 2 suggests the presence of individuals lacking the purchasing power of a merchant like Cartwright. Finally, when the best boat-landing shore area where one might expect a store house to be located is 75 m downslope from the feature, a store house function also seems unlikely. Feature 2 then would seem to better reflect a dwelling house than a store house.

Of the features with foundation remains, number 4 had the least visible amount. With only a slightly raised rim of earth and stones enclosing a relatively small space measuring approximately 16 m^2 this pentagonally shaped feature looked more aboriginal than European. A substantial amount of bedrock encountered within its south half restricted excavation, such that the single 1 x 1 m unit produced only a few brick fragments. In contrast, the half metre square shovel test in the grassy patch 3 m outside of and to the northwest of the feature's rim, produced a fair quantity of nails, faunal material and pipe fragments. However, no stone tool remains were located.

The lush grassy patch, like others on the site, was indicative of buried organic material. The faunal material in this feature's artifact assemblage, and the specific location of the lush grass patch in relation to a possible doorway gap in the northeast corner of the feature's rim suggest a midden or privy function for the patch.

Non-structural features

Located on sloping ground, Feature 3 is very probably a midden. This midden interpretation is based on both the difficult building terrain and the archaeological assemblage of this feature. Granted, sloping ground is not impossible to build on if a foundation is constructed compensating for the slope. However, the substantial amount of faunal remains, nails, trade beads and ceramic pieces, the presence of a reasonably level spot more suitable for building immediately to the east of this feature, and the lack of any visible or subsurface foundation evidence, support this interpretation.

This midden may be associated with Feature 2, 30 m north, or more possibly with an assumed building located to the east. Historic artifacts were recovered just under the sod in the level spot to the east, and these seem to be associated with a small rock cairn nearby that may represent part of a building foundation. This locale is mainly exposed bedrock with a thin covering of sod and seems a much more suitable building location. At the very least the evidence implies a non-architectural function for Feature 3 and suggests a midden function in association with an assumed building in the area.

Features 5, 6 and 7 along the shore-edge produced an artifact assemblage including concentrations of brick and glass fragments, and pieces of wood, lead and pitch. This assemblage and the shore-edge location of the features, imply functions of building material construction and equipment maintenance, especially for Features 6 and 7. The tremendous concentration of crushed and fragmented brick within and around the single 1 x 0.50 m unit in Feature 6 definitely supports a building material storage function, if not actual manufacture.

A trade bead, the few pieces of retouched chert, and a single piece of chipped, green bottle glass which certainly resembles stone tool edge retouch found in Feature 7, all imply the presence of aboriginal groups at the site. However, since most of these artifacts were located along the immediate shore edge and distributed along the bedrock shore itself they were not truly _in situ_, and therefore they cannot be assumed to be contemporaneous with Cartwright's occupation of the site. A representative sample of the beads has been studied by Karlis Karklins, a Parks Canada researcher, and his report on them will greatly help with their analysis. With the help of senior archaeologists in the Anthropology Department I will be analysing the glass and lithics from the feature. Further research on the site and surrounding area is needed before a more specific and detailed interpretation can be offered for these features.

CONCLUSIONS

Ten weeks of fieldwork at Stage Cove in Southern Labrador have produced specific data on the archaeology of a late 18th century fishing/sealing/fur trapping post. This information is now being processed and analysis of specific parts of the site's artifact assemblage has begun. Upon completion this information will be incorporated into my thesis.

Despite a month of bad weather and the harrassment of the ubiquitous blackfly, I believe this first archaeological research at one of Captain George Cartwright's settlements can be described as reasonably successful. This assessment is based on the variety and quantity of the data collected, especially the archaeological remains of a number of features representing buildings, and on the conjunctive study of Cartwright's journal with the archaeological record. The thesis describing this research will hopefully include new detail on the architectural, economic and settlement history of Southern Labrador.

ACKNOWLEDGEMENTS

I gratefully acknowledge the substantial financial support and equipment loan from the Historic Resources Division, Department of Culture, Recreation and Youth. Along with additional funding from the federal Northern Scientific Training Program, and the Institute of Social and Economic Research at Memorial University this research was able to get off the ground, or to be more precise, in it.

The excavation at Stage Cove was a team effort that included the work of Scott Biggin and Phil Woodley, and to a lesser extent, Darryl Pye, our assistant from Cape Charles. I thank them all for a good job under difficult working conditions.

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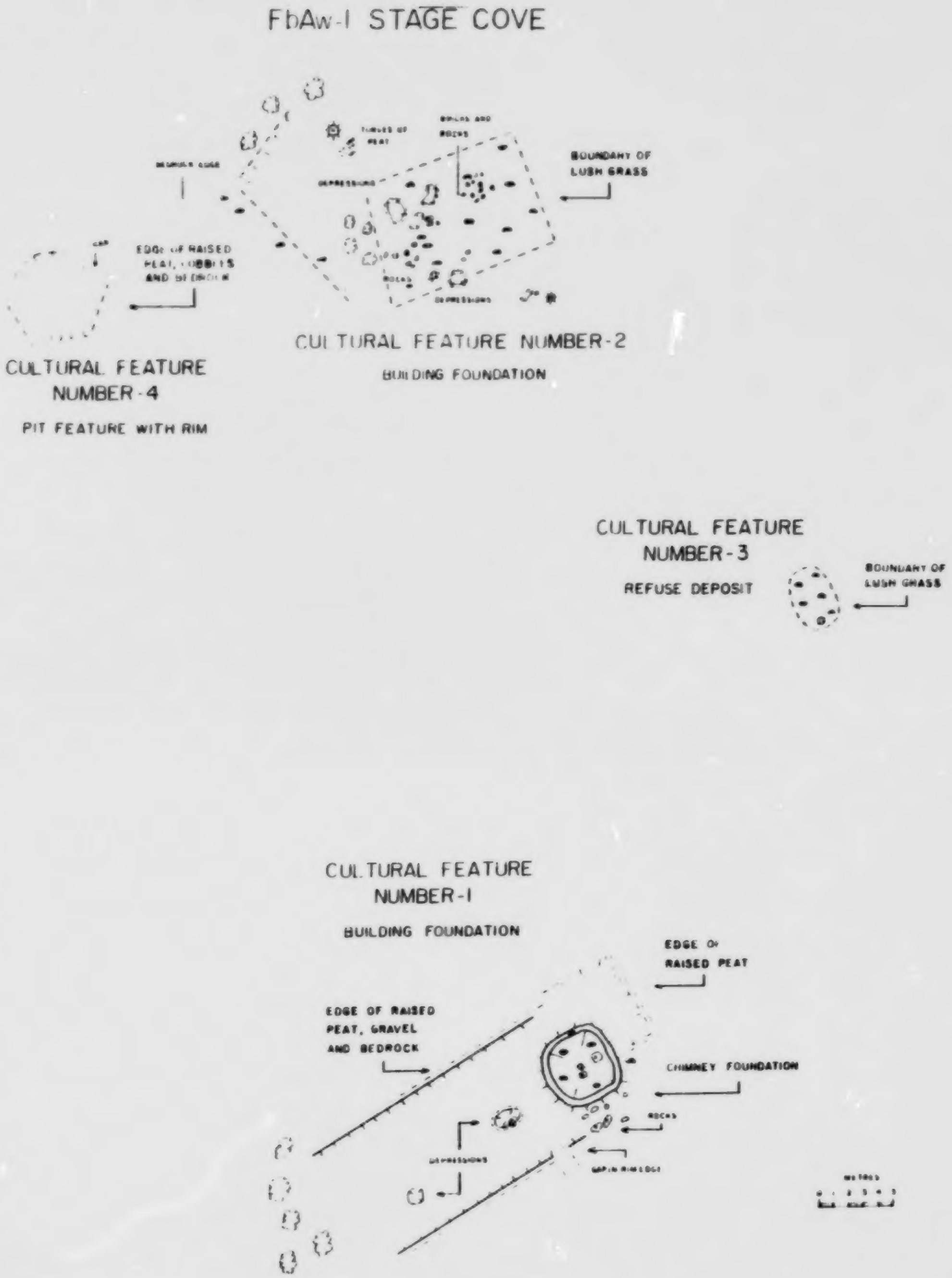
FbAw-1 STAGE COVE
TURVES OF PEAT
BRICKS AND ROCKS
BEDROCK EDGE
DEPRESSIONS
BOUNDARY OF LUSH GRASS
EDGE OF RAISED PEAT, COBBLES AND BEDROCK
ROCKS
DEPRESSIONS
CULTURAL FEATURE NUMBER-2
BUILDING FOUNDATION
CULTURAL FEATURE NUMBER-4
PIT FEATURE WITH RIM
CULTURAL FEATURE NUMBER-3
REFUSE DEPOSIT
BOUNDARY OF LUSH GRASS
CULTURAL FEATURE NUMBER-1
BUILDING FOUNDATION
EDGE OF RAISED PEAT
EDGE OF RAISED PEAT, GRAVEL AND BEDROCK
CHIMNEY FOUNDATION
ROCKS
DEPRESSIONS
GAP IN RIM EDGE
METRES
0 1 2 3 4 5

Figure 1. Stage Cove (FbAw-1) Features 1-4, prior to excavation.

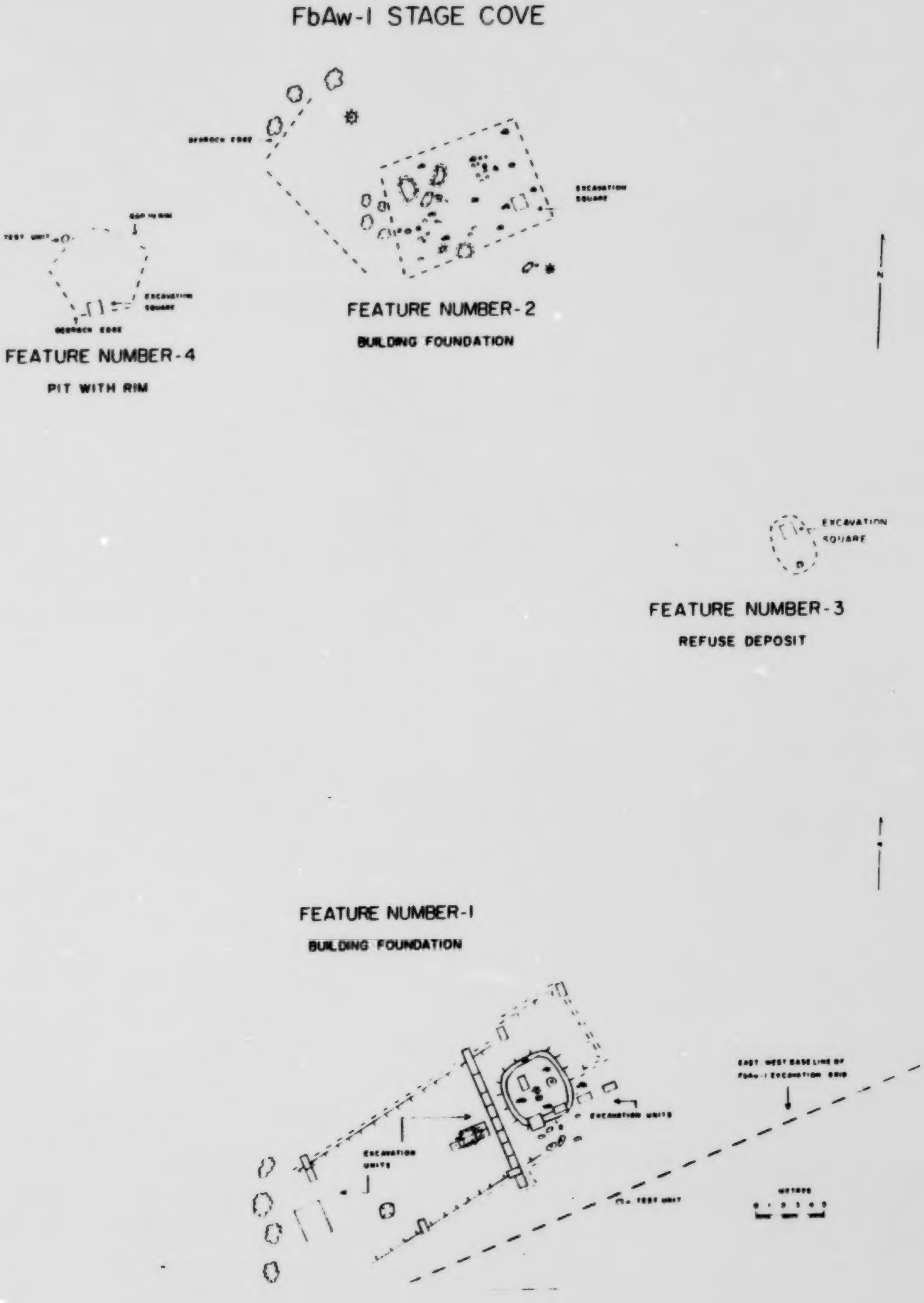
FbAw-1 STAGE COVE
BEDROCK EDGE
EXCAVATION SQUARE
FEATURE NUMBER-2
BUILDING FOUNDATION
TEST UNIT
GAP IN RIM
EXCAVATION SQUARE
BEDROCK EDGE
FEATURE NUMBER-4
PIT WITH RIM
N
EXCAVATION SQUARE
FEATURE NUMBER-3
REFUSE DEPOSIT
N
FEATURE NUMBER-1
BUILDING FOUNDATION
EAST WEST BASE LINE OF FbAw-1 EXCAVATION GRID
EXCAVATION UNITS
EXCAVATION UNITS
TEST UNIT
METRES
0 1 2 3 4 5

Figure 2. Stage Cove (FbAw-1) Features 1-4, following excavation.

1986 ARCHAEOLOGICAL SURVEY OF SOUTHERN LABRADOR: QUEBEC/LABRADOR BORDER TO CAPE CHARLES

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Ed. note: This summary is abstracted by the Editors from Auger and Stopp's 120 page final manuscript (1987) and their 278 page preliminary report (1986). Both volumes, including site reports, plates and slides, are on file at the Historic Resources Division, St. John's.

INTRODUCTION

The archaeological survey of the Labrador coast of the Strait of Belle Isle was conducted through the initiative of staff at the Historic Resources Division and with funding provided by that institution and the federal Department of Regional and Industrial Expansion. The project's principal aims were to compile a complete inventory of archaeological sites between the Quebec border and Cape Charles, to record their present status, and to assess their condition with regard to erosion, encroaching or past development, and potential for future investigation and/or tourism development. These findings would, it was hoped, help to minimize further cultural loss and provide a better understanding of the history of the region.

The north shore of the Strait of Belle Isle has been a conduit or focus for multiple cultural groups over the last 9000 years. The area is blessed with ecological advantages created by the coastal tundra belt, accessibility of more wooded zones, and the offshore mixing of the warm water of the Gulf and cold Labrador Current favouring marine life. The region can be divided into three zones according to environmental characteristics. Zone 1 incorporates the area from the Quebec/Labrador border (henceforth referred to as "the border") to the east shore of the Pinware River. This coastline is typified by deep bays and vastly abundant marine resources which have attracted maritime-adapted peoples throughout the prehistoric and historic periods. The Strait of Belle Isle ("the Strait") is at its narrowest here, thus bearing implications for the peopling of insular Newfoundland. Geologically this zone is distinct from the rest of the survey area: Lower Cambrian Labrador series arkose, conglomerate, red to grey sandstone, limestone, shale, and basalt flows are interrupted by Recent Quaternary unconsolidated sands, gravels and boulder deposits (Christie 1951: 1) represented today by extensive sand beaches and dunes.

Zone 1 has received a considerable amount of attention by archaeologists over several decades, in part because of its accessibility by road and ferry as well as the concentration and diversity of sites (Harp 1951, 1963; Keenlyside 1984; Madden 1976; McGhee and Tuck 1975; Renouf 1976, 1977). These investigators have mapped out a cultural sequence for the Palaeo-Indian to late Maritime Archaic continuum and tied the limited Palaeo-Eskimo occupations to those of other regions.

Zone 2 extends from the Pinware to York Point. It is composed of Precambrian granite and granitoid gneisses (Christie 1951: 2), rising through tundra vegetation to windswept highlands. The river systems are less well-developed than in Zone 1, resulting in less coastal indentation. Except for the small bays of Red Bay, Black Bay, Barge Bay and Green Bay this zone is judged the least inhabitable due to a lack of protection and poor access routes into the interior.

In contrast to Zone 1, archaeological and archival investigations in Zone 2 have concentrated on the historic occupation, most prominently as represented by the Basques (Barkham, M. 1981; Barkham S. 1978; Barkham and Grenier 1979; Cumbaa 1981, 1983; Kennedy 1985; Marine Excavation Unit, Parks Canada 1982; Ringer 1983, 1985; Ross 1980, 1985; Stevens 1981, 1985; Tuck 1981a, 1981b, 1982, 1983, 1984, 1985; Tuck and Grenier 1981). Traces of Inuit presence in this region were also found by Pastore and Auger (1984).

Zone 3, from York Point to Cape Charles represents the southern extent of the Labrador Sea coastline and the beginning of the many coastal archipelagoes which continue north of Cape Charles. This zone is characterized by deep bays where spruce forests reach to the shore and islands shelter the mouths of these bays. The rivers at the bottom of the bays are pathways into the interior while the islands provide locations from which to exploit marine resources. The high cliffs of Zone 2 are continued into Zone 3, but with habitable beaches at their bases.

This region had received little attention by archaeologists prior to this project. Fitzhugh (1982: 52) and Tuck (1981a: 77) reported Maritime Archaic material in the Chateau Bay area, and Vera et al. (1986) recorded Basque remains at Henley Harbour and elsewhere.

In summary, archaeological investigations along the southern Labrador coastline have concentrated on the earliest Indian occupations and the Basque whaling period. Little attention had been paid to Palaeo-Eskimo and Norse movements through the area, Recent Prehistoric Indian and Inuit occupations, and the historic seal and cod fisheries which brought other early Europeans to the Strait. No systematic survey had ventured north of Red Bay, an area with great potential given the supposed coastal travel routes north and south. In addition, the status of sites previously found required updating for management purposes.

METHODOLOGY

Three survey methods were used to cover the 272 km of coastline from the border to Cape Charles: helicopter, helicopter and foot, and foot -- mostly with boat or van assistance. The helicopter survey allowed for scheduling and preliminary assessment of potential; any sites noted from the air such as sod houses and large boulder beach depressions were visited immediately. The value of helicopter interpretation of potential was later diminished when several sites were found on raised beaches in small coves during closer inspection by boat. Only 15.8% of the coast was omitted, either because of other ongoing or recent surveys or because of the low potential (e.g. high, steep cliffs without beaches) for human occupation.

Due to logistical restrictions, equipment carried was limited. Site elevations and positions, therefore, were measured without the benefit of accurate instruments. Cultural affiliation and areal extent of sites were mostly determined by surface collections and minor test-pitting, to limit disturbance and the amount of material to be carried. Several of the known sites in Zone 1 could not be located due to destruction or incorrectly-recorded coordinates.

RESULTS OF THE 1986 SURVEY

Seventy-four new sites were added to the existing inventory of 67 archaeological sites. They are summarized below according to their cultural affiliation or prominent but undiagnostic feature. Some sites are multicomponent so will be discussed in several sections.

Basque sites: Gilbert-1, Seal Islands-1, West St. Modeste-1, Capstan Island-1, Rocketts Cove-1, Temple Bay Saddle-1. All of these sites yielded evidence of Basque presence such as roof tiles, burnt fat, coarse red earthenware, and rendering ovens. While no individual sites appear to have the significance of the Red Bay area, the mixture of rendering areas, habitation sites, a possible cemetery and whale carcasses in both main stations in sheltered harbours and exposed satellite camps has the potential for placing the Red Bay findings in a broader geographical and cultural context. The sites in the Chateau Bay area hold particular promise.

Other European sites: Pointe St. Charles-1, Camp Bay-1, Pinware West-9, Pinware West-10, Carrol Cove, Overfall Brook-2, Soldier Cove-1. These European sites post-date the Basque ocupation of the Strait and can not be attributed definitively to any particular European group. Sod house sites are discussed elsewhere. Features found include one or more of the following: dry-stone, sometimes partially semi-subterranean foundation, plank sealing hut, sod house-foundation, cobble fish-drying platform, and circular depression with or without a raised wall. Artifacts collected include ceramics, glass, nails, beads, smoking apparatus, cutlery, gun shot and flints, bricks, fish hooks and stove parts, dating between the late 18th and late 19th centuries. Sealing seems to have been the principal subsistence focus of the occupants of these sites, who may have included Newfoundlanders and English.

Labrador Inuit sites: Bad Bay-1, -4, Ragged Point-4, Black Bay-4, Whale Island-9, Edison-2, Pitts Harbour-1, Ragged Point-2, Bad Bay-2, -3, Deer Island-1, Seal Islands-1. Labrador Inuit sites were provisionally defined, for the most part, by the presence of one or more sod houses. By and large, the temporally diagnostic artifacts of these sites include fine earthenware dating from the second half of the 18th century, such as creamware, and other fine earthenware from the first half of the 19th century like whiteware. The time period represented by the artifacts corresponds to the period in which the

Labrador Inuit were interacting with people stationed at European-managed posts in southern Labrador (cf. Taylor 1974, 1980). It also corresponds to the peopling of the Strait by Newfoundland and English fishermen (cf. Thornton 1974). The cultural affiliation of the occupants of the sod houses is therefore not always clear: it is possible that some of the sod houses sampled during this survey were of European construction and occupancy while others are of Inuit origin. This problem is being addressed in a forthcoming dissertation by Auger.

Three of the sites were defined on the basis of stone fox traps; their construction, size and proximity to sod house sites supports an Inuit origin. Furs resulting from the capture of foxes in these traps were probably traded to Europeans in the vicinity of Chateau Bay in the late 18th century. Other sites contain well-defined rectangular or subrectangular sod houses with entranceways cut into one wall or a corner generally on the shore side. Size varied considerably from 12 m x 6.5 m to 4.4 m x 3.2 m. Internal features were rarely noted other than one rear sleeping platform and floor joists in the largest house, and buried timbers in another.

Other than ceramics, common artifacts recovered include pane and bottle glass, wrought iron and cut nails and other iron fragments, cutlery, lead slag and shot, English gunflints, smoking material, a thimble, stove parts, and copper fragments. In the large Seal Islands-1 house with its sleeping platform, additional artifacts which more readily identified the site as of Inuit affiliation included a soapstone vessel fragment mended with iron, a harpoon with a metal inset, and four trade beads. The early wrought iron nails and creamware argue for a late 18th century occupation by Inuit trading locally with English fishermen.

Recent Prehistoric Indian, Post-Archaic and Archaic sites. Synthesizing the post-Archaic Indian data for the Strait is particularly difficult for there exist few elements of comparison (Fitzhugh 1972, 1978). The Archaic sequence is relatively straightforward (McGhee and Tuck 1975) and contains diagnostic elements such as raw material preferences and sites at a high elevation often on sandy terraces.

Raw material preferences generally correlated well with elevations, as the following table of predominant raw materials, average site elevation, and site numbers suggests:

	Quartz	White chert	Green chert	Pink quartzite	Ramah chert
m asl	21.8	17.5	8	6	4.3
sites	11	5	1	3	3

The sixteen sites at the highest elevations represent Maritime Archaic occupations while the remainder, for the most part, correspond with the Point Revenge complex in Labrador or the Recent Prehistoric complexes in Newfoundland.

Sites with Ramah chert: Barge Bay Brook-1, Pleasure Harbour Bight-1, L'Anse au Diable-4. The site at Barge Bay Brook-1, originally defined as of Point Revenge affiliation, was later perceived as belonging to the Rattlers Bight complex, dating to 4000-3700 B.P. on the basis of a Ramah chert stemmed biface and flakes of other cherts. The other two sites contained large numbers of Ramah chert flakes and seemed to fit well within the Point Revenge complex.

Site with green chert: Overfall Brook-1. A radiocarbon date of 1170±90 (Beta 21249), and a side-notched point fragment indicate a Recent Prehistoric Indian occupation. This site has well-preserved faunal material 30-40 cm b.s. and has the potential to help clarify this period in southern Labrador.

Sites with pink quartzite: L'Anse au Clair-3, Pinware West-8, Pinware West-7. Pink quartzite represents over 90% of the assemblages found at these sites. The paucity of finished tools or other diagnostic features prevent the determination of clear cultural affiliation.

Sites with white chert: Dynamite, Pitts Harbour-2, Hancock, L'Anse au Clair-2, L'Anse au Diable-3. All of these sites contain patinated white chert; the first two share a similar technological trait in the form of use of linear flakes, observed by Carignan (1975) in the Maritime Archaic component at the Beaches site. Site elevation ranges from 5-46 m.

The Dynamite site, at 46 m a.s.l., is the highest site examined and was probably located for exploitation of nesting birds at the two nearby ponds. Based on comparison of a side-notched point fragment with material from the Beaches (Carignan 1975), the Graveyard and Forteau Point sites (McGhee and

Tuck 1975: Plates 14-16) and Black Island (Fitzhugh, cited in McGhee and Tuck 1975), occupation of the white chert sites between 3500-4500 seems reasonable. Elevations, with the exception of the Dynamite site, range from 5-20 m a.s.l.

Sites with quartz: New Church, L'Anse au Clair School-1, Beal, Potato Garden-1, Pinware West-1, Barge Bay-1, Whale Island-8, Stone, Temple Bay Saddle-1, Islet Bay-1, Castle-1. The elevation of these sites ranges from 10-40 m, with an average of 21.8 m. It is assumed that the eleven sites in this series belong to the time period from ca. 8500-6000 B.P. McGhee and Tuck's (1975) Table 2 shows that their five sites in that time period contain almost exclusively crystal, hyalin and milky quartz. Among the sites listed above, only two have additional materials: New Church has some pink quartzite, and L`Anse au Clair School-1 yielded a grey chert flake.

Boulder feature sites: East Point 2, Kenny's Cove-1, Howell-1, Mary's Nest-1, East Point-1, Respite-1, Chateau-2, Little Dark Island-1, Barge Bay-2, Man of War Cove-1 , Ragged Point-1, L'Anse au Clair-4, Pleasure Harbour B-1, Henley Island-2, Cape Diable-1, Barge Bay-2, St. Peter Bay-1, Black Bay-5, Pleaure Harbour Cove South-1, Gob-1, Shoal Cove-1, Steamer Cove-1. The distribution of sites containing boulder features, generally at relatively high elevations, ranges from Saglek Bay (Thomson 1983, 1984) to Brador Bay (Groison et al. 1986) and beyond. Fitzhugh's preliminary Maritime Archaic boulder feature chronology (1984, 1985) traces an evolution from round pit houses and small rectangular surface dwellings at ca. 6500-6000 B.P., to 8 m long 2 segment structures and 12-16 m long 3-4 segment structures between 6000-5500 B.P., to 25-30 m long 7 segment structures at 4500 B.P., 50 m long 12-13 segment structures at 4200 B.P. and, by 3700-4200 B.P., 60-100 m long 20-25 segment structures.

Twenty-three sites with boulder features were located during the 1986 survey; none contained artifacts or other dateable material. Elevation above sea level and structural form remain the only diagnostic data. No features resembled the longhouse foundations common among Maritime Archaic sites further north: nine sites contained pit houses, five had tent features, sixteen contained caches and at two sites unidentifiable boulder features were found. Pit houses were separated from the similar caches on the basis of width above or below 2 m. Some of the pit houses were noted as having raised partitions bisecting them. The larger pit houses tended to occur above 9.9 m a.s.l (from East Point-2 to Man of War Cove-1 on above list) and are interpreted as Maritime Archaic winter structures associated with some of the lithic scatters found on open, sandy terraces. Those features found below this level are thought to relate to more recent occupations.

Palaeo-Eskimo sites: Griffin, Rocketts Cove-1, Deer Island-1. Fine-grained colourful cherts were found at these three sites and, together with the few diagnostic artifacts, cultural affiliations of Early Dorset, Middle Dorset and Groswater are assigned, respectively. The paucity of sites from these cultures is puzzling in view of the spread of Palaeo-Eskimo peoples through this region into Newfoundland and at least limited contact between the two regions thereafter.

Undetermined cultural affiliation sites: Edison-1, Kelpy's Brook-1 Pointe Amour-1, Barrier Point-1, Ragged Point-3. Site elevations range between 5-25 m a.s.l.; raw materials are mixed and varied; most of the sites are disturbed.

Revisited sites: Thirty-four of the 67 recorded sites in the Historic Resources Division site inventory were re-located. Of the others, some were impossible to find due to incorrect coordinates, some have been destroyed, some are under active investigation by other researchers (e.g. around Red Bay) and a few are located in Quebec and hence outwith the parameters of this project. Surface collections were made where erosion had brought artifacts into view. Sites were assessed for their potential for further investigation, evidence of ongoing or threatened disturbance, stability, and need for salvage or consolidation.

RECOMMENDATIONS

Auger and Stopp (1986) present in their preliminary report a thorough analysis of all sites visited in terms of research and tourism potential, present condition, and salvage/protection requirements. Five new sites and six previously-recorded sites need immediate attention to deal with encroaching development and erosion. Twenty of the new sites were deemed to have some potential for tourism development and elucidation of key elements of the history of the Strait area. The following themes were thought to represent the most important research avenues (Auger and Stopp 1986: 80-82):

— A research project should be designed that will meet the recommendations put forward in the preliminary report (Auger and Stopp 1986: 232-237). This concerns the systematic sampling and surface collection of various sites recorded for the area between Blanc Sablon and Cape Charles. The project should also locate and evaluate private collections.

— Some of the Basque sites reported for the Henley Harbour region should be investigated to see how they relate to the rest of the Basque presence in the Strait of Belle Isle.

— The historic sealing stations should be investigated in order to record this little-known facet of the history of Newfoundland and Labrador.

— The Recent Prehistoric Indian period is poorly represented in the Strait. Overfall Brook-1 should be looked at more closely in order to establish its relationship to Newfoundland and Labrador's late prehistoric era.

— Those sites referred to in the preliminary report which consist of quartz scatters and are badly eroded should be salvaged, particularly the sites with in-situ cultural levels.

— The boulder feature sites have not previously been recorded in the Strait of Belle Isle. While they are not endangered by erosion they do present an intriguing research problem.

— Finally, the findings of the 1986 survey warrant the suggestion that a survey should be pursued north of Cape Charles to cover the coast as far as Hamilton Inlet. This survey should be combined with excavation at type sites that could document some of the problems raised in the present report.

ACKNOWLEDGEMENTS

It was through the initiatives of Jane Sproull-Thomson and Callum Thomson that this archaeological survey of southern Labrador was conducted. Faced in their work with the prospect of sites being destroyed by natural factors and economic development, they hoped that the survey would present them with data by which to better control the archaeological heritage of the Strait of Belle Isle. This would serve to minimize futher cultural losses and develop a better understanding of the history of the area. We wish to thank them for their effort in obtaining the necessary funding for this research and for

their discussions on various aspects.

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EXCAVATIONS AT RED BAY, LABRADOR - 1986

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Excavations at the 16th century Basque whaling stations at Red Bay, in southern Labrador, moved into their tenth season in 1986. The project began with a survey of the area in 1977 and excavations have continued each summer since. The 1986 season demonstrated that the sites around Red Bay Harbour are far from exhausted despite the intensive excavations which have taken place there, as the following description demonstrates. In addition to the construction of a small visitors' centre which provided a modest exhibit of material recovered thus far from the site as well as additional laboratory space for the registrars and conservators assisting in the processing of material recovered from the sites, work concentrated upon four areas, three of which had not previously been explored.

Organ's Island, northwest of Saddle Island where the bulk of our excavations have been carried out, was the site of a large fishing premises dating from the late 19th century and in use until the mid-20th century. This small island was known for some years to contain evidence of Basque utilization in the form of what appeared to be several small tryworks on the sheltered northern shore. Surface indications suggested that these tryworks were smaller than the majority of those on Saddle Island. Low rock walls, visible through the surface vegetation, suggested small structures perhaps capable of supporting only a single cauldron. The walls themselves were perpendicular to the shoreline, in contrast to those on Saddle Island, which invariably parallel the shoreline. It was suspected that these structures, different in form from those reported elsewhere, might relate to whaling activities either before or after the peak decades of the 1560s through 1580s or, alternatively, might represent the activities of French Basques who carried out whaling in the Strait of Belle Isle but whose shore stations do not appear to have been documented archaeologically in the Red Bay area. Unfortunately, neither of these hypotheses appears to have been correct, as the discussion below indicates.

The surface features of the site proved to be of 19th century origin, despite the presence of fragments of red roofing tile, burned whale fat, fire-broken stone, and other indications typical of tryworks excavated elsewhere. They consisted of three parallel rows of large rocks, perpendicular to the beach, for which it is possible to offer only a tentative interpretation. Nails and other material from the 19th century suggest that wood was somehow also involved in the construction of whatever structures stood there. The relative paucity of domestic refuse--ceramics, glass, and even tobacco pipes--typical of most 19th century sites around Red Bay suggest some use not related to domestic activities. The best guess is that we may have exposed a boat haul-out where small fishing boats were removed from the water at the end of each season, perhaps for storage on a nearby stone fish flake, constructed at some unknown time in the past.

That some of these rocks were removed from an earlier tryworks at the same location was indicated by traces of both burned fat and fire-spalling on a few of the rocks which comprised the haul-out. When this recent structure was removed the fireboxes of a large tryworks similar to those on Saddle Island soon emerged. As is usual, the back wall, in this case excavated into the shelving beach, paralleled the shore a few metres in front of it (see Plate 1). The structure proved to be slightly more than ten metres in length and some of the six fireboxes retained walls upwards of a metre in height. Although no traces of post molds were found, quantities of tile were present, indicating that the structure must have been covered by a framework of posts and beams, in turn surmounted by a tile roof.

Despite these elements shared with tryworks elsewhere at Red Bay, the example from Organ's Island displays some significant differences which allow us to suggest its placement in time relative to other shore stations and provide some indications of how such features were used. Excavations around the structure failed to produce any evidence of associated structures, which are common at most other shore stations. Except for a few small sherds of coarse earthenware and majolica, artifacts were extremely scarce. The fireboxes themselves appear to have suffered very little from the effects of constant heating which characterize most other such structures excavated to date. The entire impression is one of a shore station which was little used, perhaps having served for only a single season.

Why such a large and obviously costly (at least in terms of labor) feature should have been constructed and abandoned after only a single season's use is not at once apparent but the location of the shore station offers us another clue. In contrast to other whaling stations the tidal zone in front of the Organ's Island tryworks is flat and shallow. The preferred location appears to have been one where deep water was immediately off the shore, probably so that whales could be manoeuvered as close to the shore station as possible to facilitate the transportation of blubber to the tryworks. Many such areas exist along the sheltered side of Saddle Island as well as on the mainland and each of these appears to have been utilized extensively. Finally, the location of the Organ's Island shore station subjects it to the effects of the extreme northeast winds, the only dangerous weather situation in Red Bay Harbour. The combination of a little-used shore station in an unsuitable area might suggest simply a poor choice for the establishment of a station and one of which its builders soon thought better. No doubt it was a poor location, for the factors mentioned above, but it seems doubtful whether even newcomers to southern Labrador would have failed to realize its disadvantages. More likely, I think, is the possibility that this shore station was constructed and briefly used during the peak of the whaling industry, that is at a time when pressure on the harbour was great and no more suitable locations were available. The Organ's Island tryworks, therefore, would have been in use sometime during the three decades between about 1560 and 1590.

Finally, the differential heat damage to the individual fireboxes which comprise the tryworks suggests that not all fireboxes were used to the same extent; those near the centre display considerably more damage than those at the ends. It seems likely that original construction produced more fireboxes than were necessary at any one time; some served as spares or reserves to be used only when those first fired became unusable because of heat damage. Judging from the tryworks excavated elsewhere such damage must have been an endless problem. Whether all six fireboxes were originally equipped with the large copper cauldrons in which the rendering actually took place is not certain. They may have been, but it seems equally likely that once a firebox became unserviceable the cauldron it supported was simply removed to an intact firebox and the rendering process continued uninterrupted. The latter technique would have lowered the initial investment in large and expensive copper cauldrons to at least a certain extent.

The Organ's Island excavations, therefore, while not successful in discovering evidence of either early or late whaling activities, or evidence of French Basques, did succeed in providing information about the peak period of the whaling industry, for example that latecomers were willing to locate in areas singularly unsuited to the operation of a shore station, as well as information about the operation of the tryworks themselves, something entirely lacking in the documentary evidence published to date.

Saddle Island West appears to have been another shore station used only briefly, at least as far as present evidence admits. It, too, is located adjacent to a shallow-water area where manoeuvering the carcass of a whale would have been difficult. In addition, it appears to lack the associated structures and refuse which characterize most other shore stations. The Saddle Island West tryworks also differs from all others in that it was built on a fairly level sand and gravel terrace with none of the boulder and bedrock obstructions found at other locations. It therefore promises to provide a model of what tryworks were expected to look like: no accommodations needed to be made to local topography. Indeed, preliminary investigations indicate that the Saddle Island West site will provide the most extensive evidence of such a structure yet recovered. While the stone construction comprising the walls of the fireboxes has still to be exposed, the post holes and molds of the building which sheltered the tryworks have been revealed. At least ten large posts, some greater than 25 cm in diameter, were placed to form a rectangle measuring approximately nine by ten metres. Three form the back wall, three others supported the ridge parallel to the shoreline, and four posts comprised the front (waterside) wall. The positioning of the posts, in a slightly staggered fashion, suggests that the horizontal members were attached to them by means of half lap joints on alternating sides of the beams, a construction technique common in the Basque country. Following excavation, a series of smaller posts was placed in the post molds, as a result of which it became much easier to visualize the dimensions of such a structure (see Plate 2). The fireboxes appear to be located in the forward half of the structure while the back half displays a linear depression which might prove to have been involved in some way in the cooling of oil. Hopefully, excavations during the 1987 season will provide us with a much more complete picture of one of these early industrial structures.

While no associated buildings were discovered, excavations outside the tryworks did provide ample evidence of occupation--not by Basques, however, but by Indian people contemporaneous with the 16th century whalers. Scattered over an area of several hundred square metres (at least as far as indicated by test excavations) are small cobble hearths containing both native and European material. The position of these hearths is stratigraphically impossible to distinguish from the Basque utilization of the area. The material contained within, and scattered around, the hearths includes small stemmed or corner-notched projectile points (Plate 3) made both from high quality green and grey cherts and from Ramah chert. Stylistically those made from the two types of raw material are impossible to distinguish from one another. The coloured chert examples resemble those from sites around Blanc Sablon, Quebec, and, if found on the Island of Newfoundland, would probably be referred to the Recent Indian Little Passage complex (c.f. Penney 1984). The Ramah chert specimens, if found further north on the Labrador coast, would be equated with the Recent Indian Point Revenge complex (c.f. Fitzhugh 1978). Other items of native manufacture include small triangular bifaces, thumbnail scrapers manufactured on flakes, and a single sherd of coarse native pottery. European material found within and around the hearths includes iron nails, bits of coarse earthenware, textile, leather, and baleen which almost certainly was a product of the European whale hunt.

There seems little doubt that these represent the first Indian remains contemporaneous with the 16th century Basque utilization of the Red Bay area. Just what sort of relations might have existed between the two groups is a long way from obvious but a few preliminary indications are afforded by the meagre evidence at hand. The hearths themselves are small and appear to have been but briefly used. They do not seem to be substantial enough to have been used by the natives who are reported by Richard Whitbourne (from Prowse 1895: 63) and Lope de Isasti (from Barkham 1980: 54) to have assisted the Basques with the processing of whales. It seems more likely that they were used only temporarily by natives who visited the Basque premises seasonally, perhaps to obtain European goods. There is a suggestion that these visits may have taken place when the stations were abandoned during the winter months, for the only refuse bone recovered from the hearths, all of it in a calcined state, derives from harp seals (Stephen Cumbaa, personal communication) which would most easily have been taken from the pack ice during the seasons when the Basques were not present in southern Labrador. The evidence may, therefore, point to a period of native exploitation of European premises during which short visits were made to Red Bay to obtain European objects by simply helping themselves to what had been left behind by the whalers. Again, further research is necessary to investigate this hypothesis more thoroughly, but preliminary indications are that the evidence is there.

Area M, where previous investigations had indicated former activities by several cultural groups, was further investigated during the 1986 season. A large trash-filled pit containing a wealth of 19th century material was fully excavated. The stratigraphy indicates that a pit was dug through an earlier depression to bedrock and was then filled with ceramics, glass, metals, and organic objects dating to the mid-to late 19th century. The function of this most recent pit remains uncertain, although the presence of domestic material suggests that some sort of dwelling must have been associated with it.

The original depression, although its edges were somewhat blurred by the more recent activity, appears to have been dug sometime during the Basque utilization of the area. The pit and a large area surrounding it are covered with a deposit of wood charcoal, in places up to ten centimeters deep. Contained within the charcoal are ceramics, fragments of glass, and a few nails, all of which have counterparts in nearby deposits from the 16th century. Of some interest are a number of sherds of Normandy stoneware, a distinctive hard grey-bodied ceramic produced in northwestern France, including fragments of several minute ointment or condiment jars, which occur in much higher frequency than they do in other 16th century assemblages. It is conceivable that this deposit, despite its resemblance to 16th century material collected elsewhere in Red Bay, represents a somewhat more recent deposit, although the evidence is not at hand to say so with any degree of certainty. It is also possible that the relatively large proportion of Normandy stoneware indicates not exchange between Spanish Basques and potters in Normandy but, in fact, a French presence in southern Labrador. Again, it is presently impossible to decide which, if either, of these alternatives is correct. Since the area has now been virtually completely excavated it seems doubtful whether any new evidence is likely to emerge.

The work at Area M also confirmed the presence of a large Middle Dorset occupation, much larger than previous test excavations indicated. A large asemblage was recovered, scattered over an area of more than 450 m^2. The material recovered (Plate 4) includes tip-fluted harpoon end blades, triangular end scrapers, side-notched and unnotched bifaces, completely polished tabular burin-like tools, microblades and cores, various forms of ground slate tools and weapons, and a variety of soapstone lamps and bowls including one example repaired with an inset "butterfly" of flaked chert. In addition to soapstone, raw materials include a relatively low grade mottled chert with numerous fracture planes, a variety of higher quality cherts, Ramah chert, and quartz crystal. Despite the large number of chipped stone artifacts, features were notably lacking and include only a single scattered cobble hearth which produced wood charcoal, not yet dated. No house features such as those which characterize Middle Dorset winter settlements were apparent, nor was there any discernible evidence of tent rings. The site probably represents a number of sequential occupations by small Dorset bands, perhaps for the purpose of spring sealing, although faunal remains are almost entirely lacking. If, however, this is the case, it seems likely that there exists an as yet undiscovered Middle Dorset winter village somewhere along the southern coast of Labrador unless the settlement pattern of these people was radically different from that for Middle Dorset people elsewhere in the province.

As excavations at Area M expanded toward the fringes of the Middle Dorset habitation area several unexpected features pertaining to the Basque utilization of Saddle Island emerged. Five human burials and one pit identical in all respects to graves previously recorded but lacking any evidence of an interment were discovered during the latter stages of the field season. Although near the cemetery excavated during the 1982-1985 seasons, these burials are clearly outside the cemetery which is bounded by a large natural bedrock ridge. Their positions outside the cemetery are not the only features which set these burials apart from the more than 50 burials excavated in previous seasons. The apparently empty grave is a type of feature not previously encountered. The profile adjacent to the pit contains the same gravel fill sandwiched between sod layers which formed before and after its excavation, as did most other burials. The relative position of the fill layer suggests that the pit was excavated during the Basque occupation of the area. Sods thrown or shoveled into the pit at the time it was filled are also identical to those recorded in true graves. Conditions for preservation in this area were no worse than in many other areas of the cemetery, hence disintegration of the human bone cannot account for the absence of any trace of human remains. Whether the grave was refilled without being used or whether its occupant was removed for reburial elsewhere we shall, unfortunately, probably never know.

A second burial, found at the considerable depth of nearly one metre below present ground surface was unusual in this respect; most other burials were found at depths averaging about 30 cm. While the burial position, extended on the back, head to the west, and hands folded over the abdomen, was the same as the vast majority of the other burials, this was the first of more than 50 to contain deliberate grave offerings. A few centimeters above the chest, and perpendicular to the long axis of the skeleton, rested the remains of a hardwood (?) board measuring about 45 by 15 cm. Removal of the board, which contained no markings of any kind despite our hopes to the contrary, and a few more centimetres of loose soil revealed a large wooden cross, about 34 cm high and 15 cm wide, which had been placed squarely on the chest of the deceased (Plate 5). Textile, in a very poor state of preservation, appeared to underlay the skeleton, also very poorly preserved, and what appear to be braided strands of fabric lead from the neck downwards on either side of the cross. The impression is one of someone buried wearing a cloak or cape, most likely of wool, tied at the neck. No evidence of any means of suspension for the cross itself are visible and, in any case, it seems too large to have been worn regularly.

The combination of the unusual nature of this burial and its poor state of preservation posed considerable problems. Ordinarily skeletons in such poor condition as this one were drawn, photographed, such observations as were possible were made, and the skeleton reburied in sifted shell and sand beneath gravel and sod. In this case, however, the presence of the cross and fabric suggested that closer inspection of the burial, particularly the underside, might have produced useful information. Normal blocklifting techniques clearly would not have been suitable given the fragile and thin nature of the compressed skeleton and textile. We determined, therefore, to experiment with block lifting by freezing the entire skeleton and associated material using dry ice. The ice was flown from St. John's by commercial airline and arrived in good condition, with little loss of volume during the trip. The following day the feature was saturated with water, ice placed directly upon the skeleton, and within 45 minutes the feature was solidly frozen. The underlying sand and gravel substrate, which did not retain water, remained unfrozen, could be easily removed, and the entire feature was lifted into a specially constructed crate for transport to the field laboratory. Excess gravel was removed, the upper surface covered with foil and a layer of foaming polyurethane poured to provide support. The block was then inverted and the process repeated on the underside, thereby providing shockproof padding for transport to the Canadian Conservation Institute headquarters in Ottawa. Further examination, including X-radiography failed to reveal any additional information, but the technique of dry ice blocklifting was to serve us in good stead for a second burial to be described below. The skeleton is now at the Canadian Conservation Institute where an attempt to consolidate the entire feature will be made as soon as analysis has been completed and tests of a variety of consolidants are made.

The interpretation of the feature, as appears to be the case all too frequently, is still doubtful. That the cross was a deliberate grave offering seems clear. This together with the cloak-like garment, suggests the burial of a priest, but again it probably will be impossible to be more definite about this conjecture.

Three other burials, two single interments flanking the burial of three individuals, were discovered while work on the first burial was still in process. The single interments were unremarkable, being in shallow graves, positioned on the back with their heads to the west in the fashion of most other burials. The triple burial between these two, on the other hand, was quite a different matter. Not only was it deeper than either of the single burials, but the individual in the centre proved to be heading east while the other two individuals were headed west in the normal fashion. Preliminary exposure of the skeletons revealed traces of textile and leather as well as what appeared to be unidentifiable iron objects associated with all three skeletons. Again the unusual occurrence of grave goods, or at least objects accompanying the skeletons, indicated that further inspection of the features might be profitable. Once again the block was frozen with dry ice and the entire feature, measuring about two metres long, a metre in width, and weighing an estimated 250 kg, was successfully removed, cleaned, and packed for shipment to the Canadian Conservation Institute.

In this case the examination by X-ray revealed some unexpected information. In addition to two long, and apparently pointed iron objects, three other masses of metal proved to be corroded iron keys, in one case accompanied by what appear to be slightly bent nails. Two of the keys are located near the margins of the centre skeleton while the third rests of the chest of that individual. It is not clear whether all three keys are associated with this individual or whether one key originally accompanied each skeleton. This burial is now undergoing further excavation at the Canadian Conservation Institute, wherein gentle washing should remove the soil leaving the iron objects, as well as the remaining leather, textile, and whatever other material might be contained within the feature in their original positions.

Despite the success of the techniques of recovery and examination, we are no closer to understanding the significance of this feature than we are for the described previously. In fact, if anything, this feature is more enigmatic. At least the cross and cloak suggest a priest — the significance of the keys and other iron objects remains a complete mystery.

Finally, the fifth burial discovered during the 1986 season proved, if anything, to be more of a surprise than the previous four. Located a few metres to the north of the other burials, it was marked on the surface by several small boulders protruding through the surface of a small peat bog. Standing water was visible among the rocks and we originally began excavations there with the notion that the depression may have represented a small basin built to collect drinking water. No trace of a grave or other pit outline was visible as excavation proceeded, although a number of smaller rocks and cobbles within the peat indicated human activity. Finally, the edge of a large piece of textile appeared, resting on the bedrock which underlay the peat deposit. Further excavation revealed increasing amounts of textile, folded and compressed into a narrow band not more than 30 cm wide and upwards of two metres in length, and covered by rocks of various sizes. We remained unsure of what this might be, although we suspected (optimistically) that it might be a burial. When excavation reached the extreme eastern portion of the textile and a pair of leather shoes, with textile running into them, all doubts were allayed.

As final in situ cleaning progressed fingernails were found near where the right hand must have been, although all trace of bone had long since disappeared. The textile, when fully exposed, proved to be in such a good state of preservation, except for loose fragments below the area where the standing water was initially visible, that it was removed by sliding the entire mass on to a support.

Following removal of the costume from its burial place a small pool of water which remained beneath it was drained and explored for any small pieces of textile which may have remained. None was found, but at the bottom of the pool was a small, roughly made iron lance or dagger no more than 15 cm in length. It appears to have been part of the original grave furniture and represents still another case of a deliberate grave inclusion. Three of the five burials found in 1986, therefore, contained objects other than those which might have been worn by the dead at the time that they were interred. Why this should contrast so sharply with the burials made within the cemetery, only a few metres to the south, remains a mystery. Equally mysterious is the fact that these individuals were not interred in the main cemetery which was not only close by these 1986 burials but also contained ample unused ground for a number of individual interments.

Preliminary cleaning in the field laboratory allowed the garments to be separated and identified (Plate 6). The mass ultimately resolved itself into a knitted cap containing human hair, another mass of the same material which must have been a beard, a long sleeved shirt and jacket or overshirt, both with what I think are called "polo" necks, at least in modern parlance. Both shirt and jacket are made from rather coarsely woven wool. The trousers, also of wool, are of a much heavier material and appear to have been brushed or teazled, on the exterior surface at least, which resulted in an almost felt-like appearance. They are pleated at the waist but the legs, which end at the knee, are not gathered as was the case with a garment recovered in 1984. From the knees down the legs were covered by socks or leg wrappings which terminate in a pair of ankle-high leather shoes, tied at the front with fine leather ties.

It is impossible to date this costume precisely, but the shoes are identical to some recovered by Parks Canada divers from a 16th century shipwreck in Red Bay Harbour, probably the Spanish Basque vessel the San Juan, and the rest of the garments are consistent with what little we know about 16th century working class costume. Very little, in fact, is known about the dress of fishermen and whalers from this period; hence the discovery of a virtually complete costume represents an important advance in our reconstruction of day to day life of the whalers.

The costume is now undergoing analysis and treatment at the Canadian Conservation Institute. Fibers and weave will be analysed and samples of fibre will be submitted for dye analysis. It will be possible to reproduce the entire costume and may be possible to reassemble the original in a three dimensional fashion.

As mentioned above, these five burials and the presumed empty grave comprise a series of features quite unlike the burials contained within the main cemetery a few metres to the south. Not only do they appear to have been excluded from the usual burial area but three of the five graves are unusual in themselves. The inclusion of a wooden cross with an extremely deep burial, the keys and other iron objects with the triple burial, and the iron lance or dagger with an individual who may simply have been sunk with rocks in a small hollow in a peat bog all represent departures from what we have come to consider "normal" burial practices. Clearly there was something about these men which distinguished them from their companions whose graves were found nearby. Although it cannot be proved, since the skeletons are too badly degraded, burial positions and styles of dress indicated that they were Europeans. We might suspect, therefore, that something about their status in life, or perhaps the manner in which they met their deaths, somehow were responsible for their unusual burials. Although it does not look particularly promising, investigation of these remains is still in process and we may yet be provided with an answer to this latest mystery.

Finally, excavations at Red Bay were expanded from the islands in Red Bay Harbour to the mainland where several promising areas were tested. They are part of an extensive occupation in the southeastern part of the community which has long been favoured by local fishermen for placement of stages and stores. Deep water lies only a few metres offshore and the area is sheltered from all winds. These same attributes made the area attractive to the 16th century whalers. In fact, this area may have been the prime location for the whaling operations. Parks Canada divers have found two shipwrecks in the area and roof tiles and other evidence of 16th century activities are found along more than 200 m of shoreline. Our brief excavations revealed what appears to be the refuse from an area used partly for domestic purposes -- ceramics, glass, and so forth were common -- and which, on the strength of a single auger or gimlet and the site's location overlooking a tryworks, may have been a cooperage.

Several areas along the shore are now waterlogged, and appear to have been during the Basque occupation, hence we anticipate that further excavations will reveal organic materials that should add significantly to the growing picture of life and working 16th century Labrador.

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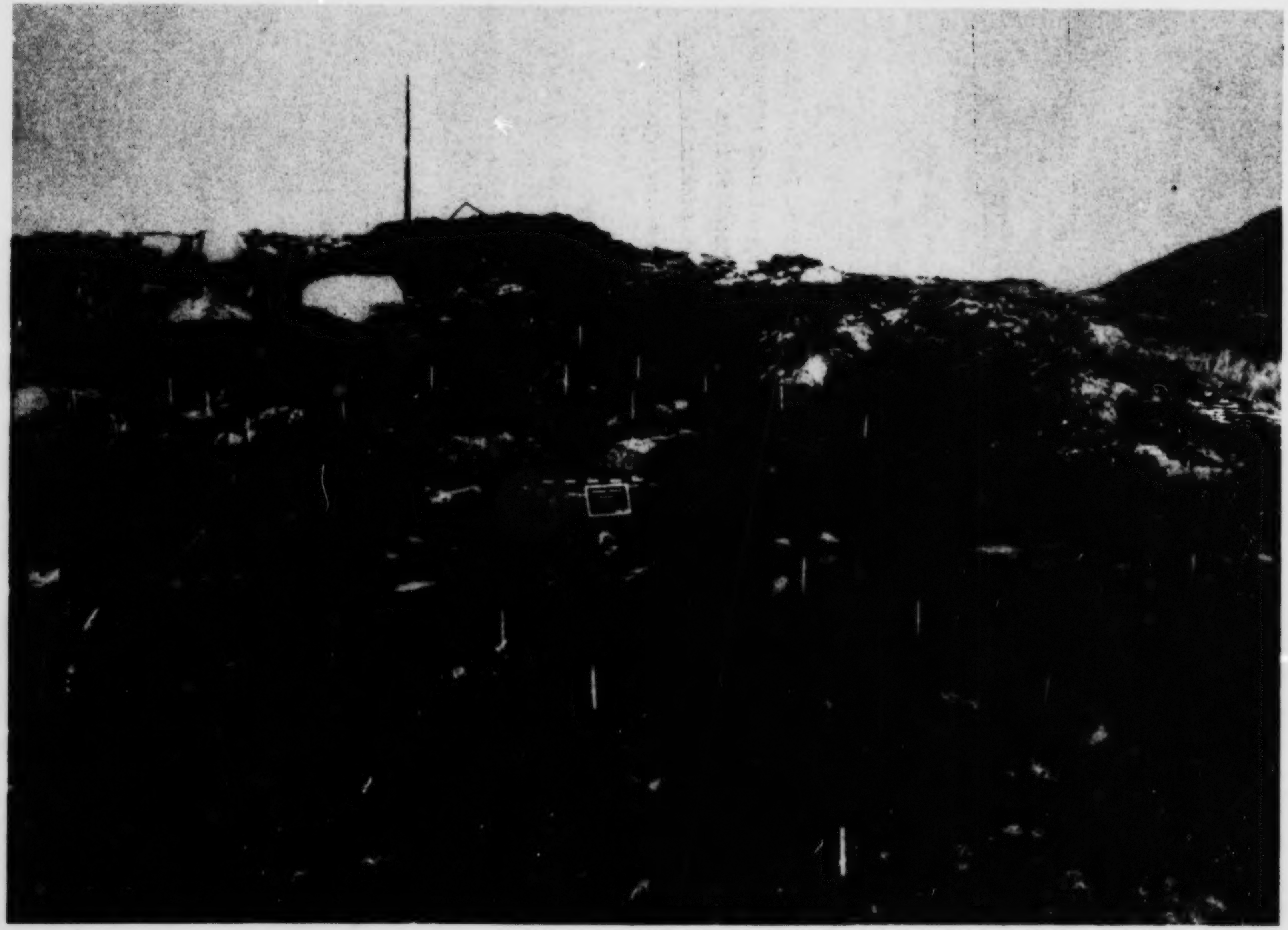

Plate 1: Tryworks on the north shore of Organ's Island.

Plate 2: Reconstruction of the frame of a tryworks at Saddle Island West. Posts have been placed in the original post molds and conjectural roof timbers added. The vertical members are not as high as the originals. In the left foreground can be seen scattered Recent Indian hearths, some contemporaneous with the Basque occupation.

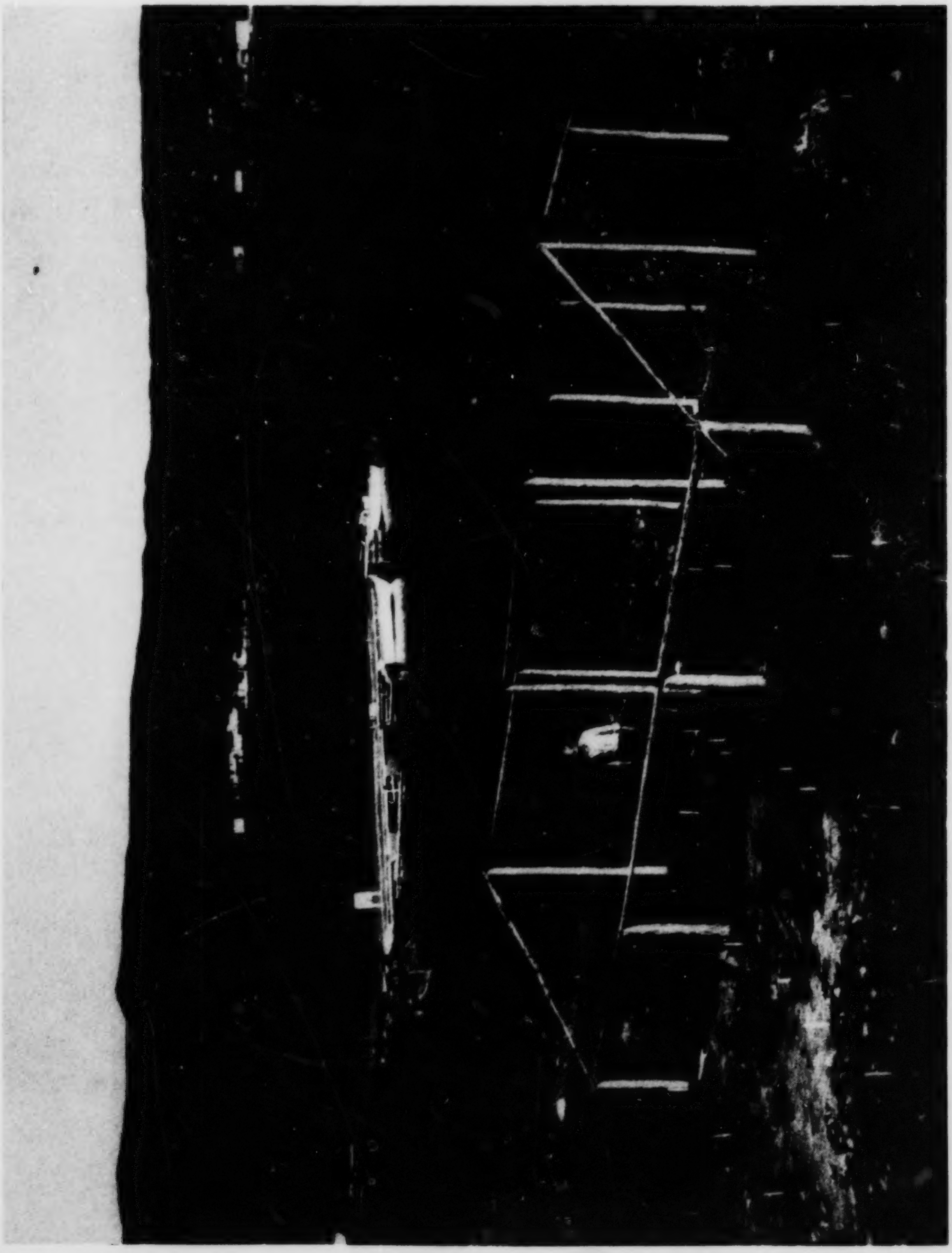

Plate 3: Recent Indian artifacts from Saddle Island West: upper row, projectile points; middle left, flake scrapers; middle right, bipolar core and linear flakes; bottom row, bifaces. Photo by Jack Martin, ETV, Memorial University.

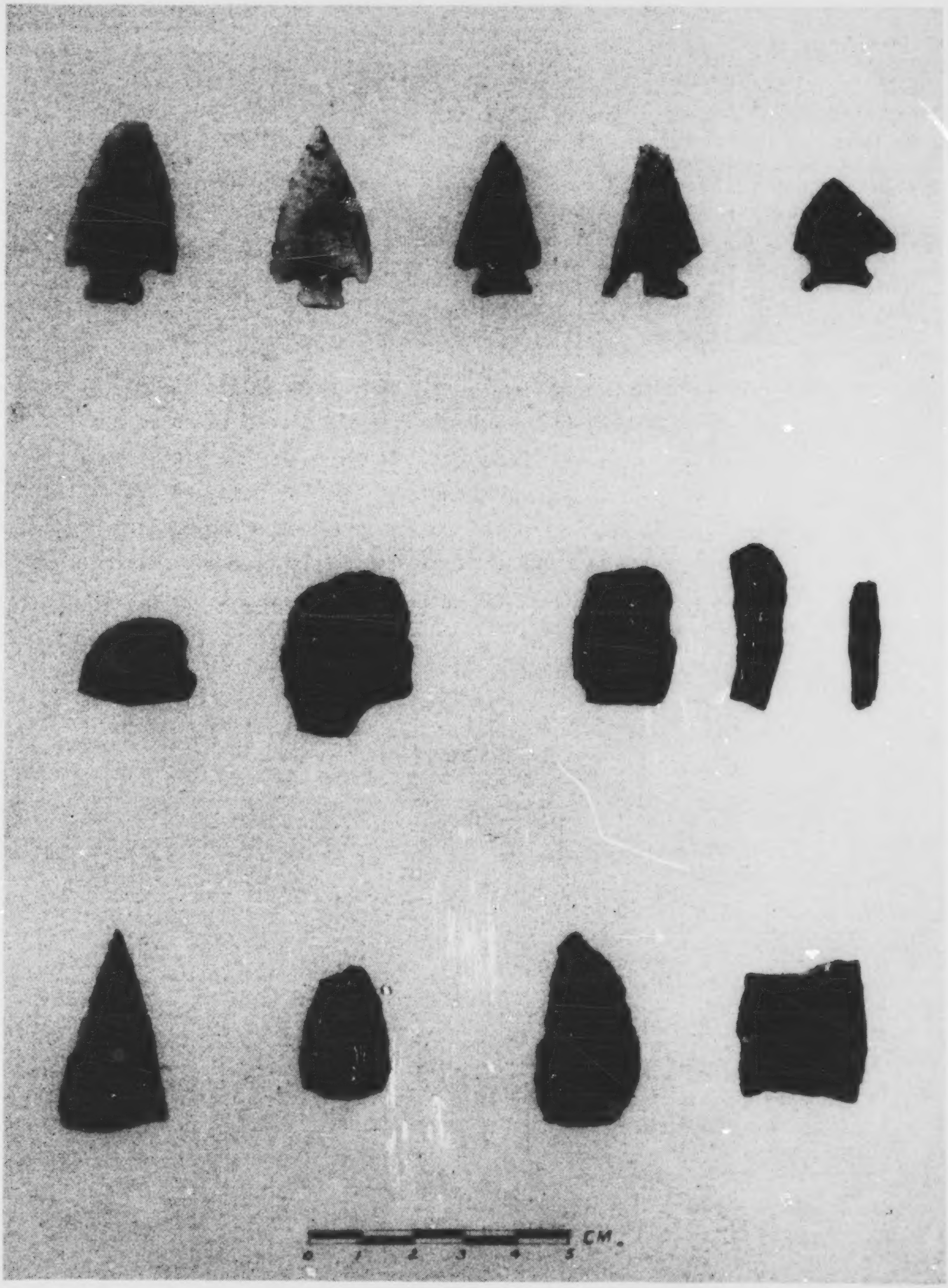
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Plate 4: Middle Dorset Eskimo artifacts from Saddle Island, Area M: upper row, harpoon endblades and side-notched knife; second row, endscrapers; third row, prismatic blades, base of polished slate lance (?), and two polished slate tools of unknown function; bottom row, soapstone bowl or lamp sherd with chipped stone "butterfly" repair, microblade core. Photo by Jack Martin, ETV, Memorial University.

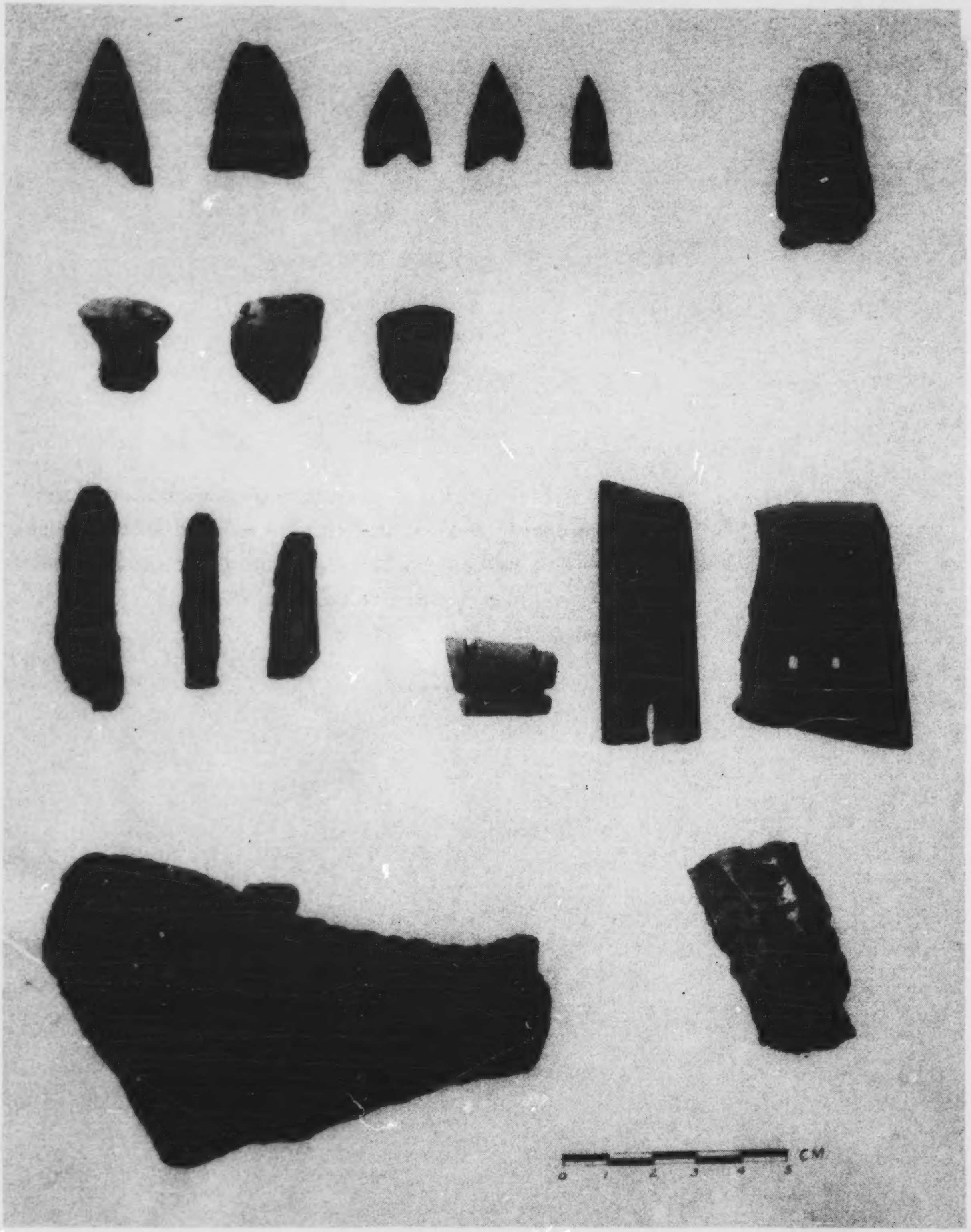
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Plate 5: Detail of Burial 57. Clearly visible on the chest of the nearly completely decayed skeleton is a large wooden cross. What appear to be braided ties, perhaps for a cloak upon which the skeleton appears to be resting, are faintly visible on either side of the cross.

Plate 6: Costume preserved with Burial 59. Visible are knitted cap and human hair, outer jacket inside of which is a shirt of similar construction, heavy knee-length breeches, socks or leg wrappings, and leather shoes. Photo by Jerimy Powell, Canadian Conservation Institute.

FIELD REPORT: 1985 SURVEY IN STRAIT OF BELLE ISLE REGION

Robert McGhee
Archaeological Survey of Canada

Ed. Note: This report was inadvertently omitted from the 1985 Annual Report. The original field report includes a photocopy of a topographic map locating the sites investigated and ten colour slides of the L'Anse Amour longhouse and "road" and the Crow Head stone houses. These are not reproduced here. Our apologies for any inconvenience caused.

From August 16 to 23, 1985, I visited the Strait of Belle Isle coast of Labrador, with the primary goal of familiarizing myself with the ongoing work of Memorial University and Parks Canada at Red Bay. A secondary objective was to revisit prehistoric sites previously located in the general area, and to assess their potential for future excavation. This work was done under Archaeological Research Permit No. 85-10, issued by the Historic Resources Division, Government of Newfoundland and Labrador.

The archaeological permit arrived by mail in Red Bay on August 19, so only two partial days, August 20 and 21, were spent in survey. In this work I was accompanied by James Tuck of Memorial University. The first day was spent in the vicinity of the L'Anse Amour site, EiBf-4 (McGhee and Tuck 1975: 76-84). Four occurrences are worth reporting:

(1) In the portion of the site previously designated as Area 1 (McGhee and Tuck 1975: Figure 3), a bipointed biface (134 x 39 x 10 mm) of Ramah chert, resembling Rattler's Bight forms, was surface collected from the vicinity of an eroding hearth. No other artifacts were apparent, and the specimen (EiBf-4: 609, the only artifact collected during the project) was picked up to forestall local collectors.

(2) The portion of the site previously designated Area 10 is a large blowout which had produced a mixed collection of surface material. Along the southern edge of this blowout, and partially hidden by sand dunes, what had previously been assumed to be a rather unusual boulder beach feature was recognized as a possible structure. A rather scattered arrangement of cobbles and small boulders form two parallel east-west rows 4-5 m apart and ap-

proximately 30 m long; some of the boulders are piled two to three high, and a few flakes of white chert lie on the surface. This may be the remains of a Maritime Archaic longhouse similar to those reported in more northerly regions of Labrador, and may merit future excavation.

(3) Near the middle of the large area of boulder beaches lying across a creek to the west of Area 10 and north of Area 13, was a feature which we had previously puzzled over and guessed to have been the remains of a Historic period road. The feature consists of two parallel rows of boulders approximately 3 m apart. It lies roughly north-south and crosses the grain of the gently sloping beaches, can be traced definitely for a distance of 45 m in a gentle curve, and less definitely for a total length of 95 m in a gentle S-shape. Boulders hidden in the vegetated area between the rows may represent cross-walls, and two small test pits in the interior produced fragments of charcoal. Again there is a possibility that this may be the remains of a Maritime Archaic longhouse or perhaps a "road" of the type previously reported from the Aillik Peninsula of central Labrador and the Dog Peninsula of northwestern Newfoundland (Fitzhugh 1983: 122).

(4) At Crow Head, approximately 3 km west of the L'Anse Amour site, we revisited the site designated by Harp (1963: 193) as Forteau Bay 2 (EiBf-3). The seven circular structures, built of piled rock slabs, remain much as described by Harp. Harp's excavations of five of the houses appear to have been relatively superficial, and it is possible that further excavations might reveal evidence relating to the proposed attribution of the site to an historic Inuit occupation of the area. No excavation or collecting was done.

On August 21 we visited Mr. Harrison Barney of L'Anse au Loup, who the previous day had reported a site which he had just discovered and which was scheduled to be destroyed later in the week in order to construct a church. His collection included small bifaces in red quartzite, and a few fragments of ground red slate. Barney took us to the site, where we undertook a brief salvage excavation. The site lies on a lot belonging to Levi Barney, on the west side of the main highway through L'Anse au Loup, and across the road from Cohen's store. Material is eroding from the upper 15 cm of sand in the edge of a blowout. We excavated an area of five square metres, which appeared to encompass the core of the site, encountering numerous flakes and chunks of quartzite and a few small fragments of red slate, but no finished complete or fragmentary tools; no features or charcoal deposits were found. No specimens were collected from the site, which was given the preliminary designation EjBf-2. The site probably represents the remains of a small camp which was occupied towards the early end of the local Maritime Archaic sequence, and may have been related to the nearby Barney site (McGhee and Tuck 1975).

This work brought to an end the brief survey undertaken under this archaeological research permit.

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MAIN RIVER/SOP'S ISLAND ENVIRONMENTAL IMPACT ASSESSMENT

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INTRODUCTION

On June 12, 1986, two designated locations along the Main River and two known archaeological sites on Sop's Island, DkBe-1 (Pittman site) and DkBe-2, were examined in accordance with the terms of reference set by the Department of Environment for a proposed wood harvesting programme. The Main River locations were tested for historical and prehistorical remains. The visit to Sop's Island was for the purpose of preparing photographic and written records of the current status of sites.

SURVEY RESULTS

Main River Location 1

This location was designated as a major bridge crossing on the topographic map provided by the proponent, the Department of Forest Resources and Lands. At this point the Main River flows very swiftly between narros, rocky shores. Dense spruce and fir forest grows to within a few metres of the water. An examination of the immediate shoreline showed any occupation to be unlikely as it is composed of soil deposited by the river, much of which is probably underwater during times of flooding. Testing showed this deposit to be only a few centimetres thick, and underlain by bedrock. No evidence of-human activity was observable. Dense forest is encountered further from the river. Test pits in the forest margin along both sides of the river showed the stratigraphy to consist of a brown, rooty peat overlying a grey or brown subsoil. Again, no evidence of human occupation was observable; no culture horizons, man-made features, or artifacts pertaining to either the historic or prehistoric period were discovered.

It appears unlikely that this section of the Main River was ever occupied by human populations — except perhaps in passing -- as it offers no enticements to even temporary settlement. The swiftness of the river is not conducive to salmon fishing, nor would it be suited to a caribou crossing. These two resources -- salmon and caribou -- would undoubtedly have figured prominently in the diet of any population inhabiting this region, and their inaccessibility at this point along the Main River is in accordance with what test pitting indicates, that this portion of the Main River was not occupied in the past.

Main River Location 2

The second designated locale along the Main River appeared, at first glance, more promising. Although rapids occur at this point, the river flows more slowly than at the previous location, its course being broken by a small island midstream. Downstream of the island is a large, tranquil pool or steady which residents of the region describe as an excellent salmon fishing location. The shoreline along part of this steady is flat and grassy. A visual inspection and test pitting of both shores of the river and of the island was performed. Stratigraphy essentially the same as described above was observed, namely, brown peat overlying sterile brown or grey subsoil. Evidence of recent activity was observed on the island and along the grassy shore bordering the steady. This consisted of small concentrations of wood charcoal and partly burnt sticks — the remnants of recent campfires. Dale Coldwell, the helicopter pilot and an avid salmon fisherman who has fished this part of the Main River, reports that the location is frequented each year by sport salmon fishermen. These campfires are attributable to them. No other evidence of human activity was discovered, either along the immediate riverbank or in test pits in the bordering forest.

SUMMARY AND RECOMMENDATIONS

No significant evidence of human activity was discovered at ether location along the Main River. The major bridge crossing was, with respect to cultural remains, totally barren; the second location yielded evidence only of recent sport fishermen. It is suspected that neither location was particularly suited to prehistoric peoples as the major resources of the region are not readily accessible at these points. The Main River supports a considerable salmon population and the second survey point is reputedly an excellent fishing locale, yet that alone was probably insufficient to attract prehistoric hunters and fishermen. No signs of caribou were noted at the designated locations, and the absence of this resource likely precluded any prehistoric occupation. The peoples who occupied sites at Sop's Island, White Bay — the Dorset Eskimos -- likely restricted their salmon fishing activities to locations immediately accessible from the coast; extended forays upriver were probably unneccessary. Development at either of the designated locations will not endanger historic resources, as, in the opinion of the author, none exist.

Sop's Island: DkBe-1 (Pittman site)

In accordance with the requirements of this project the Pittman site (Figure 1) on Sop's Island was examined in order to assess its current status. The site was recorded photographically on 35 mm Kodachrome 64 from the air and the ground. Selected slides are included with the field report (on file, Historic Resources Division).

Archaeological research at the Pittman site was conducted by Urve Linnamae in 1967. Excavations showed the site to have been occupied by Dorset Eskimos and before them, Indians of the Maritime Archaic tradition. Linnamae described the location as an area of cleared land covered with a rich growth of grass (Linnamae 1975: 51). In 1967 two potato gardens were maintained and grass was cut for feed. The situation is considerably altered today. Gardens at the Pittman site have been abandoned -- for quite a while, apparently -- and a new growth of alders, birch and spruce has encroached on much of the once-cleared land. Many of the trees have attained a diameter of from five to twelve centimetres. Fencelines of the gardens that were active in 1967 are now decayed, partly fallen, and surrounded by young forest growth. Faint depressions mark the excavations of 1967. One pit (Trench 8, Linnamae 1975: 56) is more readily visible than others as it was apparently not backfilled. A new sod layer has, however, stabilized this excavation.

No cultural material was visible on the surface and hence no collections were made. A single test pit was dug to verify that the location under examination was indeed the Pittman site -- due to the encroaching forest the site looked very different than descriptions and photographs provided by Urve Linnamae. The test pit, the location of which is indicated on the enclosed photocopy of Linnamae's site plan, produced nine chert flakes but no finished artifacts. These flakes were replaced and the test pit filled. No material was removed from the site.

Linnamae makes mention of erosion along the bank in front of the site Linnamae 1975: 55,57) but none was observed during this visit. A good sod layer covers the slope which extends down to the rocky beach. It appears quite unusual for erosion of a bank front to cease, unless a significant sea level change occurred. As sea level fluctuations usually occur over a greater time than nineteen years, other factors must be involved. It is possible that the erosion noted by Linnamae was initiated by pedestrian traffic along the bank during the time that hay and potatoes were grown at the site and removed by boats at the beach below. Constant travel over the bank may have partly collapsed it and left it susceptible to particularly high tides or storm seas. This erosion was apparently not constant, as the bank has recovered now that traffic over it has ceased. It may be said with assurance that no natural factors are acting to destroy the Pittman site. Indeed, quite the opposite is occurring: with the abandonment of gardening, new growth is covering and stabilizing the site.

In summary, the Pittman site is in as good and perhaps better shape now than it was in 1967. Human activity at the site, ongoing in 1967, has ceased. New forest has covered much of the site and erosion of the bank along the beach has stopped. The site is not in danger of any disturbance in the foreseeable future, unless gardening activity is resumed, and therefore it might be advisable to monitor for this. No steps need be taken to protect the site from natural impacts as it appears to have successfully recovered from sea erosion and suffers no wind erosion. Further archaeological work at the site should be limited to problem-oriented research.

Sop's Island: DkBe-2

The requirements of this survey, as presented to the author, include a "foot survey of Pumbley Cove Burial site, Sop's island (DkBe-2)". No such site exists. There is a Pumbley Cove burial site, but it is not located on Sop's Island nor is it DkBe-2. DkBe-2 is a small habitation and/or quarry site on Sop's Island, occupied by Dorset Eskimos and possibly Maritime Archaic Indians. The site was visited during this survey; colour slides taken from the air and the ground accompany the original report.

DeBk-2 is accorded only a paragraph of Urve Linnamae's report on the sop's Island archaeology. Flaking debris was found at the base of and on top of a talus slope, in a small cove about one-quarter mile from the Pittman site (Linnamae 1975: 51). Linnamae notes no recent occupation at the site.

Cultural material is not visible on the surface at the bottom of the talus. Three flakes were located at the top of the slope, but were not collected. Indications of past excavations are clearly visible here, as the tundra-like vegetation has been slow to recover from the explorations of Linnamae's team. No erosion is ongoing at either the upper or lower location. No human disturbance, other than that attributable to archaeology, is observable; the site is devoid of any sign of (historic) human activity.

No measures to salvage or stabilize this site appear necessary. In time the ground cover will recover from the minor excavations performed. No significant portion of the site lies exposed. Future excavations should, again, be restricted to structured archaeological research.

SUMMARY

This survey examined two proposed bridge crossings on the Main River and two previously-known archaeological sites on Sop's Island, White Bay. Foot surveys of the bridge crossings disclosed no evidence of prehistoric or historic occupation other than recent campfires of salmon fishermen at one proposed crossing. Consequently, no objections to development at either location can be made from an archaeological perspective.

The two archaeological sites on Sop's Island are quite stable and appear in no immediate danger. The Pittman site is quickly being covered by forest now that gardening has ceased, and its bank front is no longer eroding. DkBe-2 has changed little since archaeological excavations were performed in 1967, and no active erosion was observed. Both sites appear stable and require no protective or salvage measures. The Pittman site may be monitored for a resumption of gardening by local inhabitants, although this appears unlikely.

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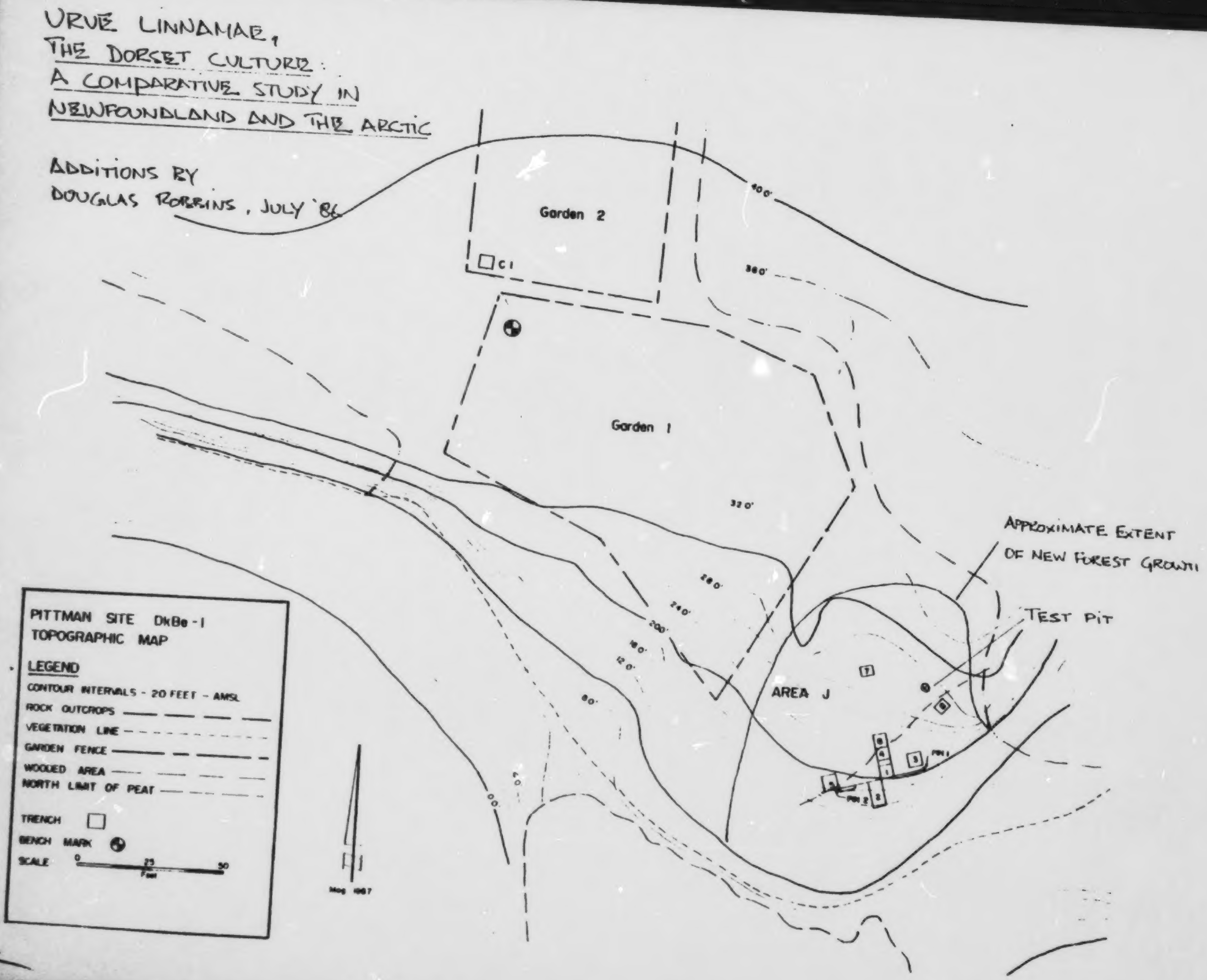
Figure 1. Pittman site (DkBe-1), Sop's Island. After Linnamae 1986.



URVE LINNAMAE,
THE DORSET CULTURE:
A COMPARATIVE STUDY IN
NEWFOUNDLAND AND THE ARCTIC

ADDITIONS BY
DOUGLAS ROBBINS, JULY '86

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Garden 1
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320'
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240'
200'
180'
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1
2
APPROXIMATE EXTENT OF NEW FOREST GROWTH
TEST PIT
Mag 1987
PITTMAN SITE DkBe-1
TOPOGRAPHIC MAP
LEGEND
CONTOUR INTERVALS - 20 FEET - AMSL
ROCK OUTCROPS
VEGETATION LINE
GARDEN FENCE
WOODED AREA
NORTH LIMIT OF PEAT
TRENCH
BENCH MARK
SCALE 0 25 50
Feet

MARITIME ARCHAIC AND MIDDLE DORSET OCCUPATIONS AT FLEUR DE LYS: PRELIMINARY RESULTS OF 1986 INVESTIGATIONS ON THE BAIE VERTE PENINSULA.

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INTRODUCTION

Archaeological investigations by the Historic Resources Division at the Fleur de Lys Dorset Eskimo soapstone quarry and associated habitation site at the tip of the Baie Verte Peninsula, Newfoundland (Figure 1), continued for a second year in 1986. Funding from the Federal Challenge 86 programme was obtained by the Dorset LEAD Committee and the Baie Verte Peninsula Task Force through the efforts of Charley Ennis. Eight university and college students working for a period of six weeks in May and June under the supervision of Scott Biggin excavated 34 m^2 by the shore of Fleur de Lys harbour in an attempt to identify habitation structures associated with the surface artifacts previously collected in this area (Thomson 1986). Two centuries of natural and human disturbance in this location made such identification extremely problematic; however, site plans were drawn of the disturbed remains of what may have been structural features and a large collection of Middle Dorset and Maritime Archaic lithic artifacts and waste material and some early European objects was recovered. Quantitative and spatial analyses have not yet been completed; as a consequence, this report is necessarily brief.

A programme of site tours for visitors to the quarry and habitation sites was maintained throughout the summer. A small exhibit of artifacts and preliminary findings was prepared and installed at the Baie Verte Craft Shop. During the course of surveys elsewhere on the peninsula, operating on information received from members of the public, a new Middle Dorset site was found on Granby Island, off Westport, extensive evidence of Maritime Archaic occupation was discovered in Nippers Harbour, and early European structures were inspected near Tilt Cove.

SITE REPORTS

Fleur de lys (EaBa-1)

The early history of investigation at this site was described by Nagle (1982) and Thomson (1986). Its identification as a source of soapstone for manufacturing pots, lamps and bowls has long been established (Howley 1915). Wintemberg (1940: Figure 1, 320-321) first identified the site as of Dorset Eskimo rather than Beothuk use, based on an analysis of a photograph of the quarry taken by Jenness in 1927 or 1929 (Jenness 1972 [1932]: 231); Howley (1915: Plate XXXII) illustrates several soapstone vessels which had evidently derived from the site; LeBlanc and Carignan (1969) made a small collection of Dorset material from some unidentified location in Fleur de Lys; other investigators have periodically collected hammerstones and soapstone blocks from below the cliff face (collection of the Newfoundland Museum). However, it was not until the summer of 1985 that surveys further afield indicated that the main habitation area was probably not at the soapstone cliff face, where excavations had revealed only the results of quarrying operations (Thomson 1986). Surface collections and subsequent test-pitting 200 m south of the quarry delimited a small, relatively level area adjacent to the harbour where modern house, stage and road construction and gardening have disturbed a prehistoric site which extends over at least 600 m^2. Efforts in 1986 were directed principally at locating habitation structures, soapstone reduction or vessel manufacturing areas and other features below the disturbed zone.

Excavation. A grid was set up over Mrs. Genevieve Shelley's vegetable garden and all previous test pits and unauthorized excavations were tied in (Figure 2). Areas identified through previous testing as the most productive of artifacts or possessing some other potential were investigated. Areas already planted with vegetable seedlings were not disturbed, but were surface-collected. Preliminary analysis of the findings indicate that there is little potential for discovery of an undisturbed Dorset component in this area, identified as Locality 6 following Nagle's (1982) original labelling of two loci. In most test areas historic debris was found at the same depths as prehistoric material, as deep as 50 cm below the present surface. While there seems to be a concentration of Maritime Archaic artifacts in the highest northeast sector, close to a rock outcrop, this is not exclusively true and no stratigraphic separation was discerned between Maritime Archaic and Dorset material. Unfortunately, bulldozing for the Shelley basement in the early 1980s and earlier and subsequent land levelling, road and building construction and erosive gardening practices including the placement of beds and furrows perpendicular to the slope seem to have destroyed most of the original cultural stratigraphy in those areas of Locality 6 so far tested.

Results. All test pits were dug either to sterile soil or to apparent boulder or slab structures. Time did not permit the removal of any possible features; in only one case (Test Area 13) was the excavation unit large enough to include most of what is probably a badly disturbed boulder feature. Two thousand prehistoric and historic artifacts were recovered from the excavations in Locality 6 in 1986, including several hundred from random digging and collecting over the preceding year by members of the Shelley family. A forthcoming report on the prehistory of the Baie Verte Peninsula will include the results of the analysis of the debitage, disturbed features and 2700 artifacts collected from this site in 1985 and 1986.

Soapstone blocks, small chunks and fragments of vessel preforms found in the excavations at Locality 6 indicate that at least some reduction of the quarried blocks and vessel manufacture took place at this location. The Dorset chipped stone material compares well with other collections in the region from White Bay to western Notre Dame Bay. Middle Dorset artifacts including large quartz crystals, microblades, endblades and small endscrapers of grey, green, black and banded tan fine-grained cherts, and thick rectangular soapstone pot sherds at Fleur de Lys 1 are all very similar to material from the Pittman site on Sops Island (Linnamae 1975) dated to 1300±100 B.P. (GaK-1904), and from Brighton Island Tickle 1 (Penney 1988). A hardwood charcoal concentration in association with Middle Dorset artifacts from an area of paving slabs at ca. 25 cm below surface in Test Area 4, on the southern edge of Test Area 13, was dated in 1985 to 1480±100 B.P. (Beta 15674). A sample of spruce charcoal in association with Middle Dorset and Maritime Archaic material was recovered from 40 cm b.s. in Test Area 7, at the northeast corner of Test Area 13; this was dated at 1270±90 B.P. (Beta-15675), a similar date to spruce charcoal recovered from 42 cm b.s. at Locality 1, in front of the cliff face. This last sample, in association with quarried soapstone blocks and quarrying tools, was dated to 1220±110 B.P. (Beta-15675).

It is interesting that the Fleur de Lys dates are very late in the Dorset sequence for the Island, which runs from 1890±100 B.P. at Shamblers Cove, Bonavista Bay (Tuck 1983: 63) to 1280±60 B.P. at Stock Cove, Trinity Bay (Robbins 1985: 123), and 1090±90 B.P. in Placentia Bay (Linnamae 1975: 73). This helps to support Robbins's (1985: 108) hypothesis that "the period after ca. 1600 B.P. (A.D.350) was a time of widespread occupation throughout western Newfoundland", although it does little for his suggestion that "the northeast coast was occupied earlier and perhaps for a shorter duration than the west" (Robbins 1985: 115).

The Maritime Archaic material from Fleur de Lys is largely undistinctive: ground slate axes, adzes, gouges and preforms, and a few chert bifaces. There is no evidence that the Maritime Archaic knew of and exploited the soapstone quarry; it seems unlikely, however, that they failed to notice the extensive outcrops 50-250 m distant from Locality 6. Soapstone plummets are present in many Maritime Archaic collections from the Island's northeast coast (e.g. Lloyd 1875, 1876).

Granby Island (DkBe-3)

Reports by informants led us to a site on Granby Island, White Bay, opposite an abandoned community south of Purbeck's Cove. The island is well wooded except for a few open areas used for gardens and sheep grazing. In one of these clearings we found evidence of a Middle Dorset occupation in three 50 x 50 cm test pits. The wall of a rectangular soapstone pot, a bifacial, triangular chert endblade and a few chert flakes were found in the sandy soil beneath a thick turf. The area tested is several metres above sea level, 50 m back from the present shore, and is well-situated for shelter from northerly winds, a view over the south end of White Bay, and access to seals and birds. It is likely that parts of the site remain intact. We did not see any other sites on the island as we walked from our landing place on the south side, but others may be present.

We visited the north end of the town of Westport to check on an area known locally as "Indian Burying Place". Mrs. Beulah Jacobs informed us that three large, stone endblades and an iron axe head had been found 30 years previously during excavation of a nearby house basement. The present whereabouts of the artifacts is unknown. We checked the exposed walls and backdirt pile of this unfinished excavation and test-pitted the adjacent garden, but found no traces of archaeological remains. Mrs. Jacobs informed us of a local tradition that "the last Indian" was shot here several generations ago.

Nippers Harbour (DkAx-2)

On another occasion we spent a day in Nippers Harbour, where public works operations in the 1960s had revealed large quantities of Maritime Archaic artifacts. We inspected several areas at the east end of town and found evidence of three separate loci. The main deposit of artifacts -- chert bifaces and ground stone tools and preforms, now in the possession of Mr. Brooklyn Bowers -- had been found, apparently at a depth of a metre or more, in a level(led?), open area. Our test pits in the same location produced some chert flakes, charcoal and bone.

We also found large amounts of ground stone tools and preforms on a terrace about 5 m lower and 50 m further east (Locality 2). Additional, similar material had been found in a garden plot here by a Mr. Perry. A red slate bayonet had also been recovered from a garden in this location. Thirdly, we were informed that other ground stone tools and soapstone plummets had been found in the town's graveyard and in other gardens, but we were unable to confirm this.

It seems likely that there had been a substantial Maritime Archaic occupation in Nippers Harbour. More extensive surveys and testing will be required to establish whether any deposits are still intact. Considerable damage has been done by recent excavation for roads, buildings, gardens, cemeteries and water and sewer lines.

Tilt Cove

A report of an unusual boulder feature near the town of Tilt Cove on the east side of the Baie Verte Peninsula was investigated. The feature has the appearance of a loading dock. The front is straight, 1-1.5 m high, built of well-fitted boulders, and runs for about 70 m; the top is level, several metres deep front to back, and well vegetated. I was unable to find any local information on the origin or use of this feature, but it may well have been built in the last century or so as a level platform for buildings, or as a loading ramp.

CONCLUSION

Six weeks of excavations at Fleur de Lys and surveys around the peninsula confirmed conclusions drawn in 1985 that the Baie Verte Peninsula is rich in sites from at least 4000-1200 B.P. and from several centuries of European occupation. Continuing investigations will undoubtedly draw out more local information on a variety of sites; other locations not yet visited by boat and in existing or abandoned communities probably also will be productive.

Continuing analysis of the Fleur de Lys material and field notes may reveal some distributional or structural trends not currently visible, but it seems more likely, for now, that yet another large prehistoric site on the northeast coast of Newfoundland has been extensively damaged by recent activities. The same conclusion can be drawn for Nippers Harbour. The future of investigation, protection and development of the Fleur de Lys Dorset soapstone quarry and habitation site, and other sites on the Baie Verte Peninsula, rests with the Historic Sites branch of the Historic Resources Division. Any information on sites or artifact collections not known to the Division should be reported as soon as possible in order that the long and interesting history of this area can be told and the material remains protected.

ACKNOWLEDGEMENTS

Scott Biggin supervised the crew of Ross Chafe, Debbie Hewitt, Sherry Lee Jones, Wallace Osbourne, Ron Philpott, Patricia Reid, Shawn Rice and Zane Saunders, and catalogued the 1986 artifacts. Mark Allston washed and sorted flakes. Genevieve Shelley put up with our disruption of her garden; I hope that our peat moss compensated somewhat. Thanks also to Angus Shea for his hospitality and making a room available as a workshop. Once again, Charley Ennis and staff and his LEAD and Task Force committee colleagues in Baie Verte were instrumental in funding this operation. Thanks also to all those residents of the Peninsula who were so free with information and hospitality.

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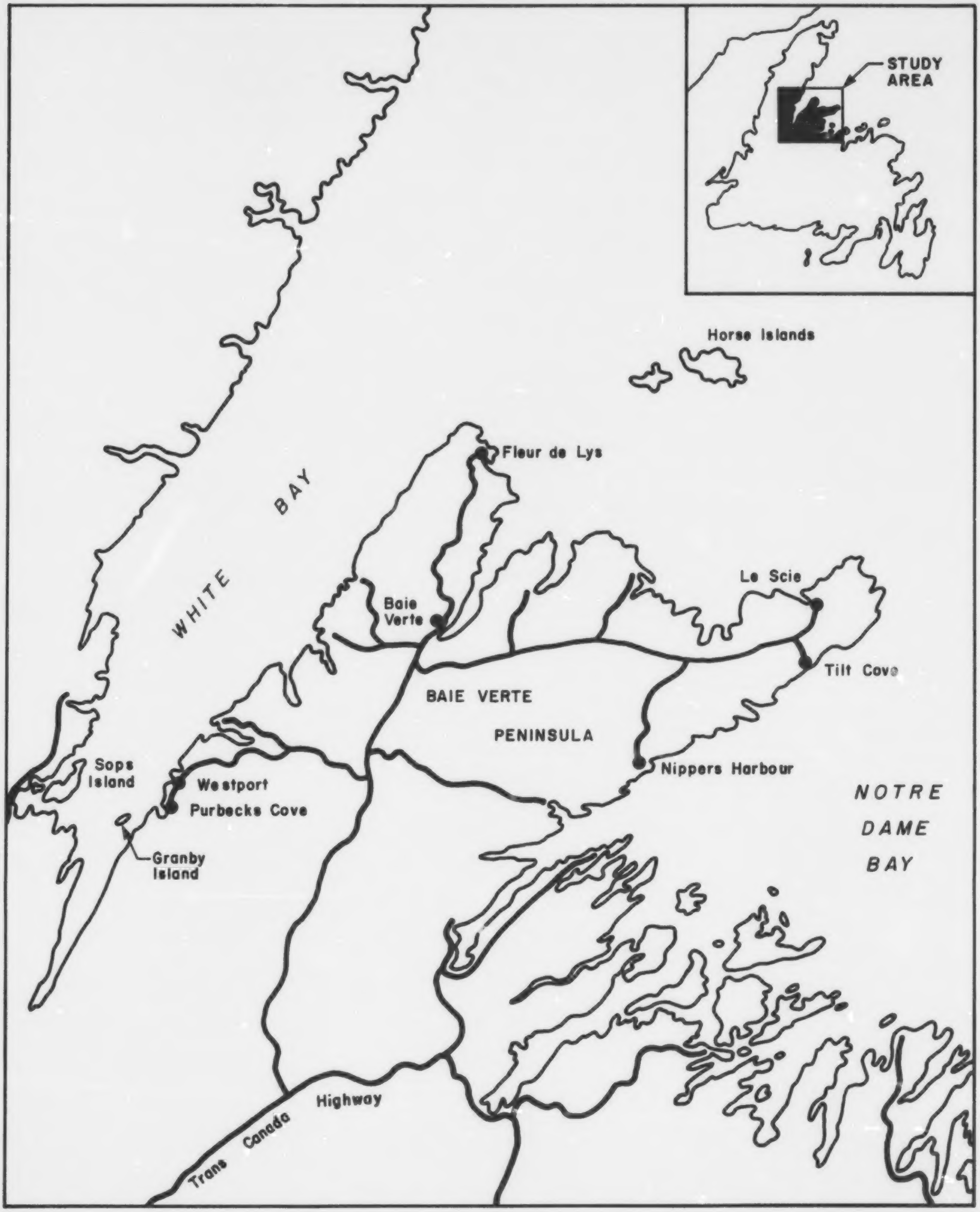
STUDY AREA
Horse Islands
Fleur de Lys
WHITE BAY
Le Scie
Baie Verte
Tilt Cove
BAIE VERTE
PENINSULA
Nippers Harbour
Sops Island
Westport
Purbecks Cove
NOTRE DAME BAY
Granby Island
Highway
Trans Canada

Figure 1. Locations on Baie Verte Peninsula mentioned in text.

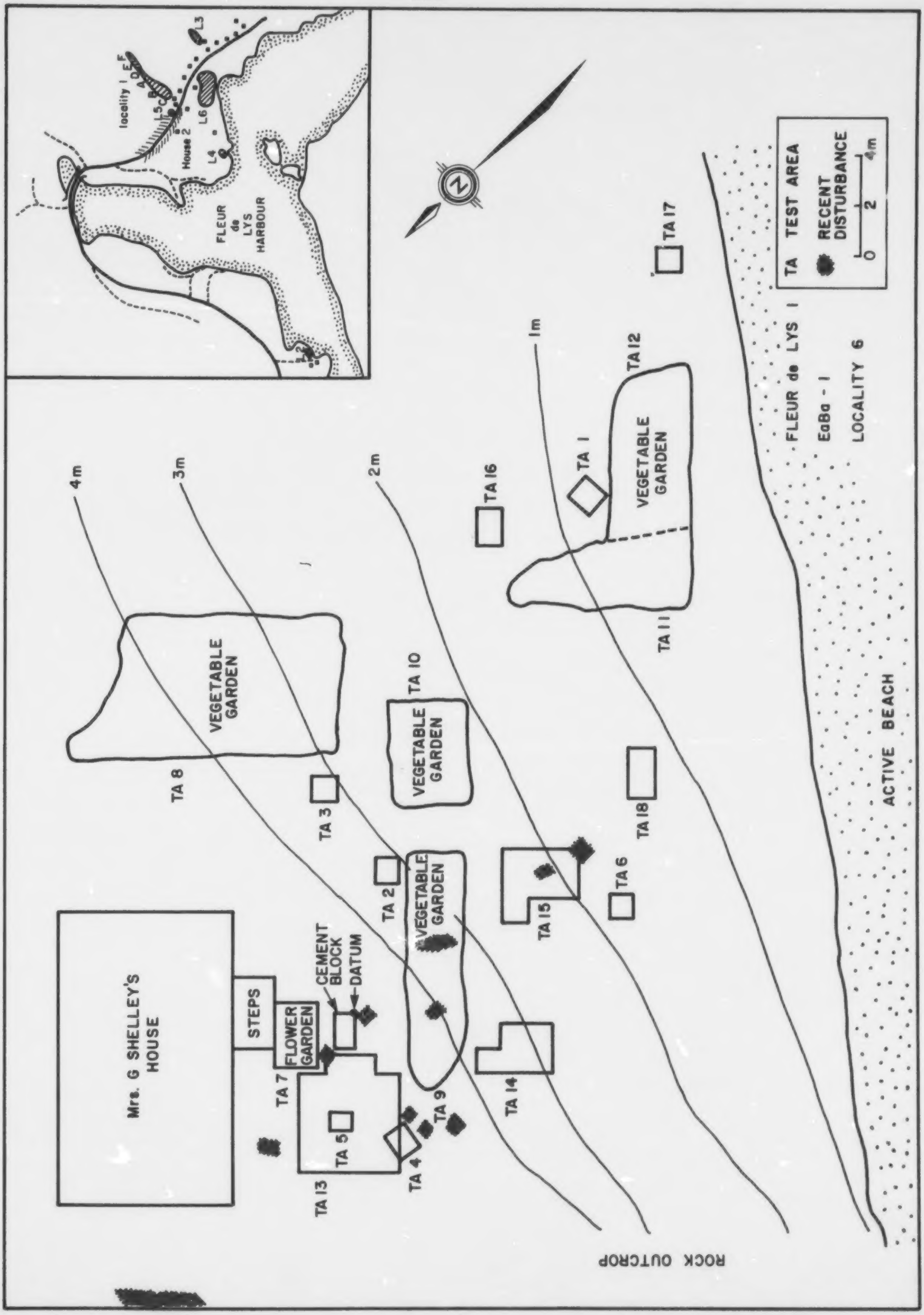
Mrs. G SHELLEY'S HOUSE
STEPS
FLOWER GARDEN
CEMENT BLOCK
DATUM
VEGETABLE GARDEN
VEGETABLE GARDEN
VEGETABLE GARDEN
VEGETABLE GARDEN
TA 1
TA 2
TA 3
TA 4
TA 5
TA 6
TA 7
TA 8
TA 9
TA 10
TA 11
TA 12
TA 13
TA 14
TA 15
TA 16
TA 17
TA 18
4m
3m
2m
1m
ACTIVE BEACH
ROCK OUTCROP
FLEUR de LYS I
EaBa - I
LOCALITY 6
TA TEST AREA
RECENT DISTURBANCE
0
2
4m
N
FLEUR de LYS HARBOUR
locality I
House 2
L3
L4
L5
L6
A
B
C
D
E
F

Figure 2. Site plan, Fleur de Lys 1 (EaBa-1).

REPORT FOR PERMIT NO. 86-16 INSPECTOR ISLAND (DiAq-1)

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INTRODUCTION

Inspector Island is in eastern Notre Dame Bay, 4.6 km north of the community of Comfort Cove (Figure 1). The site DiAq-1 is located in the first of two shallow coves on the SE corner of the island. In 1982 I directed a two person crew who opened up a total of 33 m^2 during the period from 3 August to 23 August as part of a project to assess two Beothuk sites, Inspector Island and Boyd's Cove (Pastore 1983). In the course of that field season we discovered an extensive Little Passage occupation lying below what appeared to be a brief Beothuk occupation. The Little Passage levels revealed diagnostic stone tools, a small amount of bone, and two characteristic hearths, charcoal from which has been dated at 610 ± 60 BP (Beta 6730), and 690 ± 40 BP (Beta 3938). The Beothuk occupation was thought to include two depressions (Figure 2, Features 1 & 2) which were interpreted as house pits, and a U-shaped configuration of rocks (Figure 2, Feature 3) which was thought to be an arrangement of hold-down rocks (with perhaps the northern perimeter disturbed) for a temporary structure.

This feature, although probably pertaining to a tent rather than a pit house, has a certain similarity in shape and dimension to House 4 at Boyd's Cove. A subsequent treatment of the Inspector Island iron with NaOH and electrolysis has revealed one nail that has been aboriginally modified and which is identical to a number of Beothuk modified nails from Boyd's Cove. In addition, a minimum of six stone tools from Inspector Island can now be assigned to the Beothuk, rather than the Little Passage culture.

Although Feature 1 was thought to be a house pit, since it and Feature 2 strongly resemble house pits from Boyd's Cove, test-pitting its interior did not reveal any cultural material. Since the feature lies on the edge of an active beach, the absence of cultural material was thought to be the result of its interior being flushed out by a high sea.

Since time did not permit us to complete excavation of all units, we excavated 10 m^2 only to Level 2 (the presumed Beothuk level). These units were reburied and the entire excavation was refilled to approximately its original contours and re-sodded.

1986 INVESTIGATIONS

The objectives of the 1986 investigation were: a. to determine the amount (if any) of natural and human destruction of the site and, b. to determine if future work at Inspector Island is warranted.

On 31 July 1986 I revisited Inspector Island with one field assistant and spent the day at the site. The re-sodding of the excavated portion of the site had been quite successful, and there was virtually no evidence that the site had been excavated. We located our 1981 datum, an X chiseled into a large rock, 6.05 m NW of N10 E20, and also found wooden pegs at N0 E0, N0 E7, and N0 E10. We then replaced the wooden pegs at N0 E0 and N0 E10 with 1 m long steel rods driven into the ground, protruding ca. 1 cm above the surface and drove another 1 m steel rod at N8 E6. With the grid re-established we laid out a 1 m x 50 cm excavation unit in the centre of Feature 2 (Figure 3). Below the sod we encountered a brown gravelly layer extending to a depth of 8-10 cm below the surface. This lay directly above a 4-5 cm thick, hard-packed, black, organic level. Below that lay grey beach gravel to an unknown depth. These levels were designated as follows:

Level 1: sod
Level 2: brown, gravelly matrix
Level 3: hard-packed, black organic matrix
Level 4: sterile beach gravel

Nothing was found in Level 1 nor in Level 4.

Level 2 produced: 3 sherds of yellow, lead-glazed coarse earthenware
2 fragments of battered iron pyrite
1 vertebra (possibly seal)

Level 3 produced: 6 fire-cracked rocks, the largest of which was ca.15 x 10 cm, the smallest of which were ca. 5 x 10 cm (these rocks were left in place.)
8 unidentified fragments of iron

31 pcs. of lead shot (4.5 mm diameter)
1 grey-green chert flake
1 biface thinning flake of grey-brown chert
15 unidentified fragments of calcined bone

The results of the Feature 2 test pit indicate that this feature is indeed a house pit, one which has apparently escaped serious disturbance. The recovery of fire-cracked rock and calcined bone from the Feature 2 test pit is consistent with a central hearth similar to house pits from Boyd's Cove. The mix of iron and stone debris was also found in Boyd's Cove house pits. The lead shot is problematical, but lead shot has been also recovered from the Boyd's Cove house pits.

After completion of the Feature 2 test pit, we examined the rest of the site for evidence of destruction. When we first located this site in 1981, we noted the presence of a number of square, round, and rectangular excavations. These excavations were filled with flakes, but no artifacts. We interpreted these excavations as the work of a pot hunter or pot hunters. On our 1986 visit we found no further evidence of looting.

More disturbing, however, was evidence of extensive erosion along the western edge of the site (Figure 4). Wind and wave action appears to be undercutting the bank which rises above the beach. We were told by a fisherman from Comfort Cove that, in winter, ice pans are rafted onto the beach and bank, and it is our opinion that ice movement has also been responsible for the destruction of an estimated 15 m^2.

Inspection of the eroding bank revealed the existence of two buried culture layers with bone and shell protruding from the bottom level. Since we did not think that the bone would survive another seasonal cycle, we recorded its provenience and then collected it. These faunal remains have not yet been identified but they appear to include large bird and sea mammal bones.

CONCLUSION

Since Inspector Island is clearly undergoing some site destruction, we recommend that future excavation be undertaken there to salvage what may turn out to be important information. In our estimation, the interior of Feature 2 should be excavated and its walls trenched in two places. Experience derived from Boyd's Cove indicates that this strategy is the most economical means of determining both the interior configuration and the method of house construction. An area approximately 6 m x 3 m south of Feature 2 and a similar area south of Feature 1 should also be dug to recover information which might otherwise be lost due to erosion. Once this excavated area is back filled and re-sodded it should form a barrier to future erosion. In this regard, some thought should also be given to erecting a low rock sea wall at the edge of the bank.

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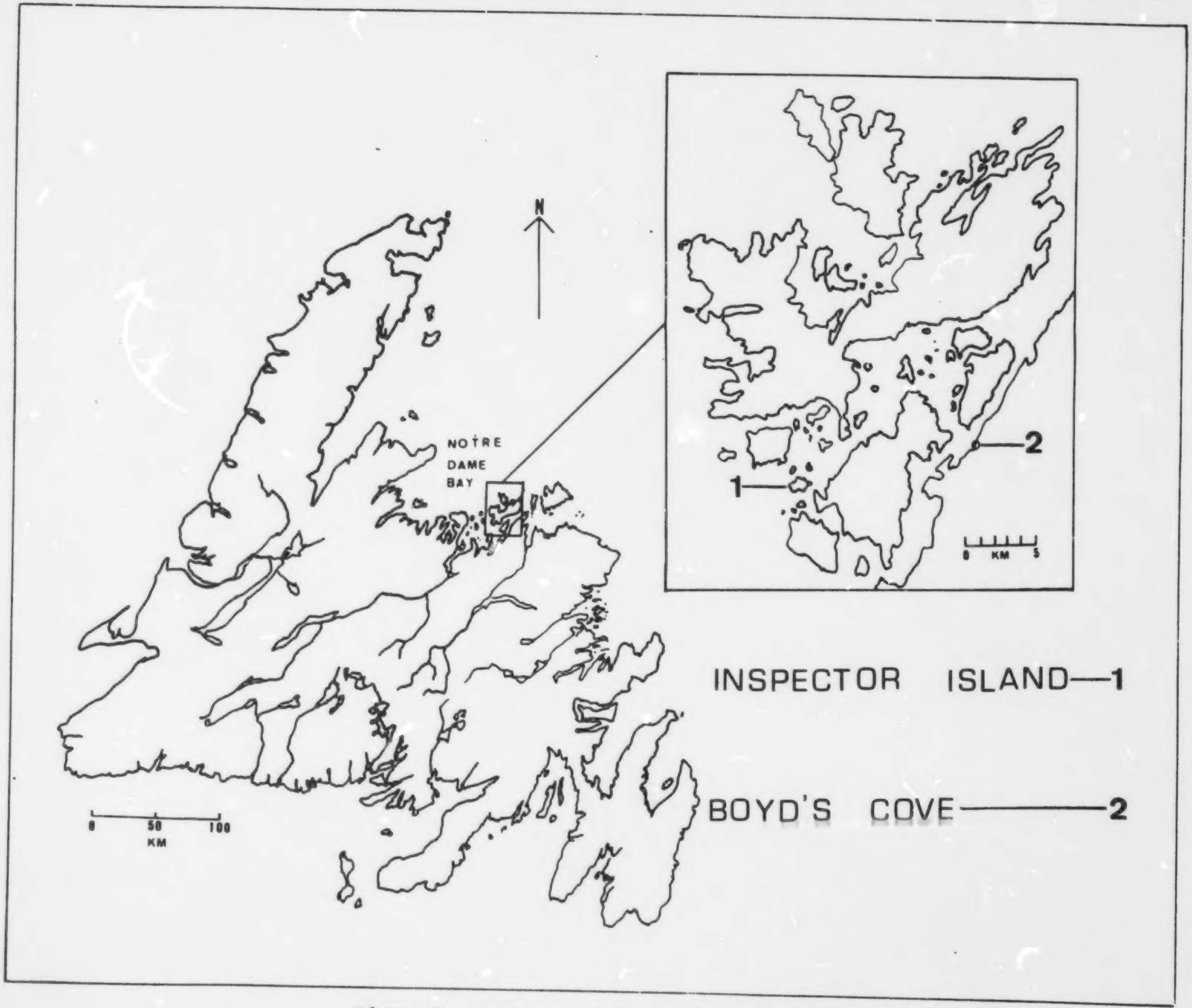
N
NOTRE DAME BAY
0 50 100 KM
1
2
0 KM 5
INSPECTOR ISLAND—1
BOYD'S COVE—2

Figure 1. Inspector Island and Boyd's Cove.

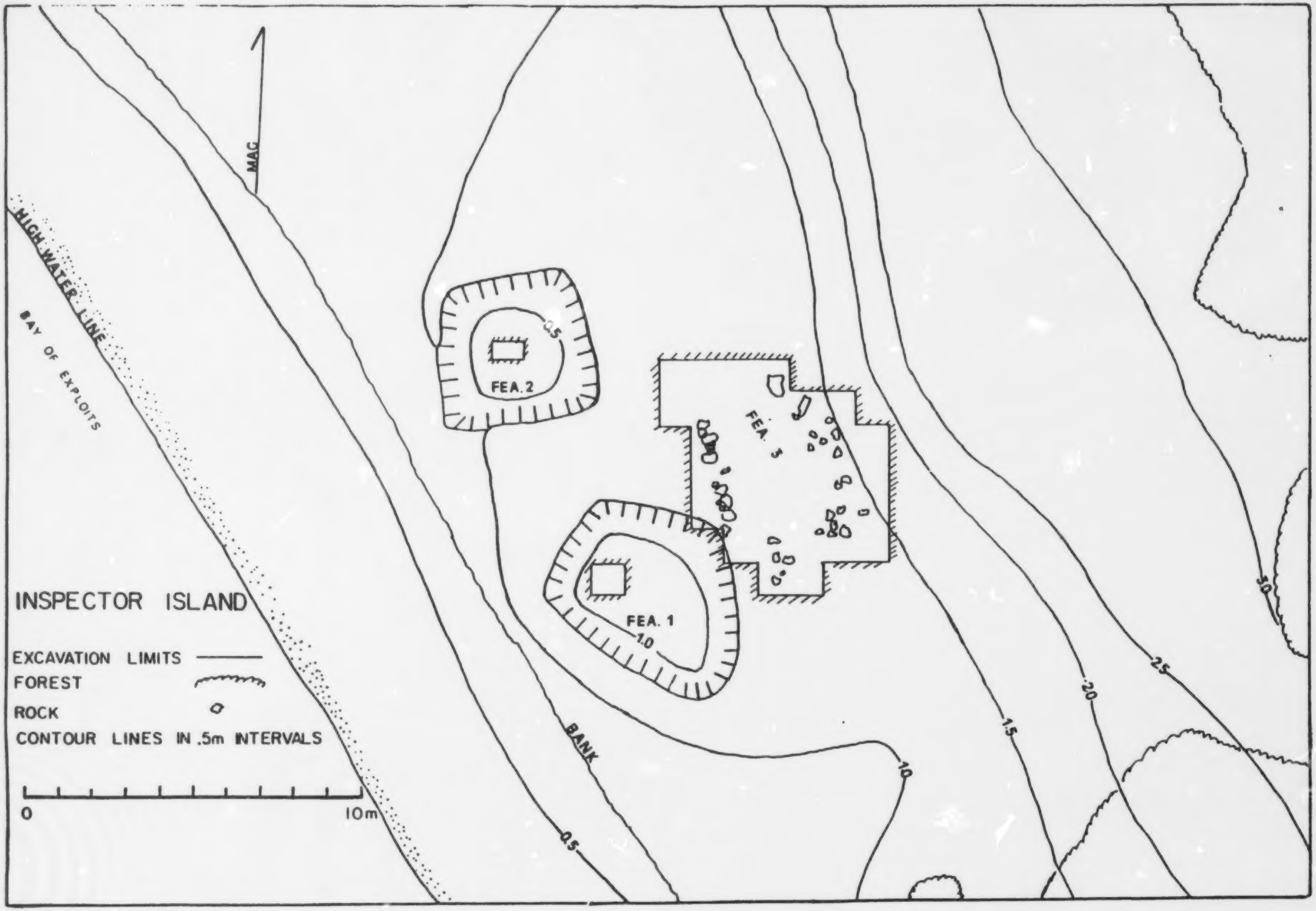
INSPECTOR ISLAND
EXCAVATION LIMITS
FOREST
ROCK
CONTOUR LINES IN .5m INTERVALS
0
10m
MAG
HIGH WATER LINE
BAY OF EXPLOITS
BANK
FEA. 1
FEA. 2
FEA. 3
0.5
1.0
1.5
2.0
2.5
3.0

Figure 2. Inspector Island (DiAq-1) -- preliminary map, 1986.

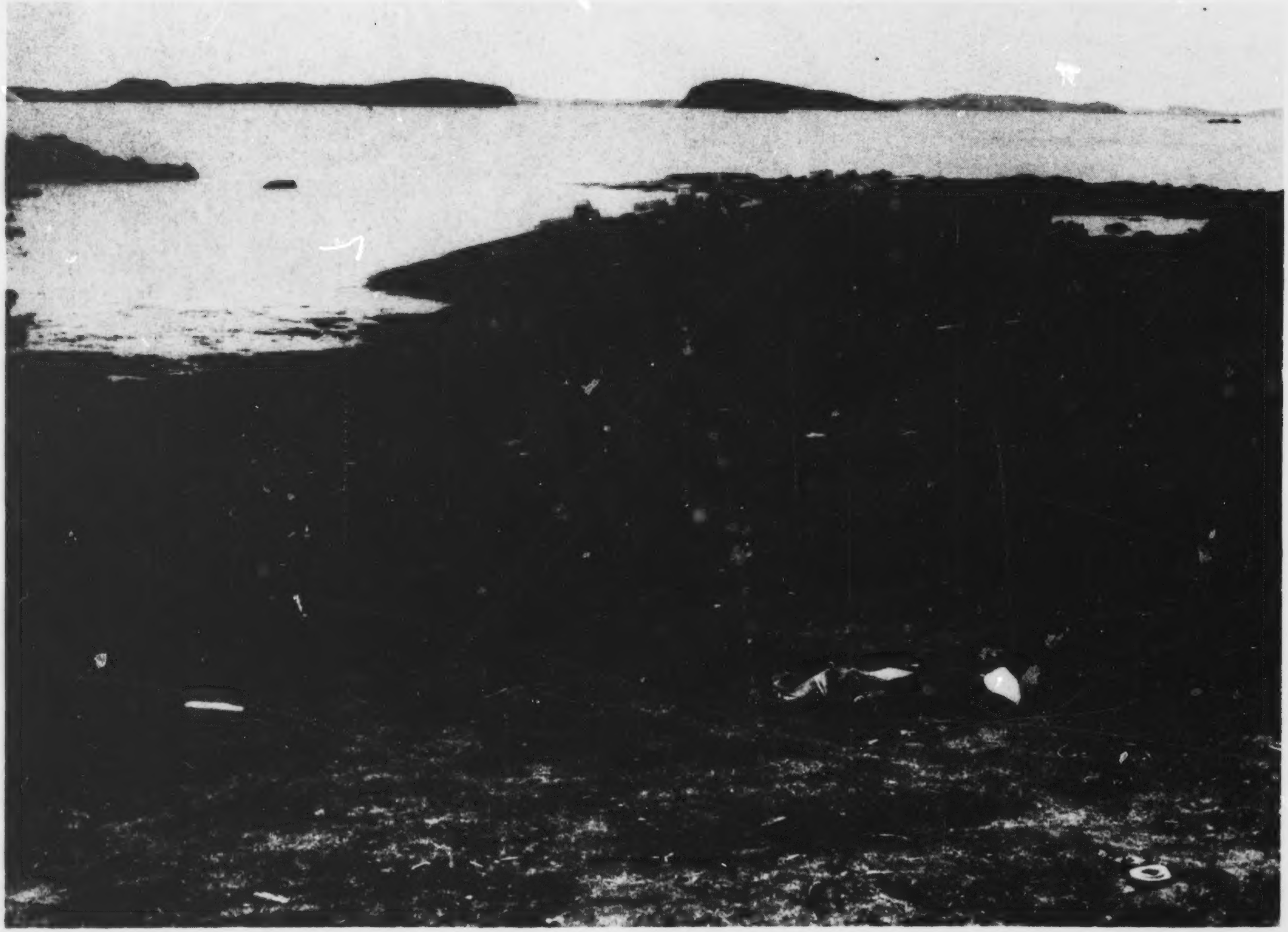

Figure 3. DiAq-1 Feature 2. View east.

Figure 4. DiAq-1, view northeast. Feature 1 in right centre.

17th CENTURY SETTLEMENTS IN CONCEPTION BAY

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Memorial University

CONCEPTION BAY SURVEY: BACKGROUND AND AIMS

Although the seventeenth century English occupation of Newfoundland was not intensive, there was by midcentury a core of several hundred permanent residents, or planters, as well as an annual seasonal occupation by thousands of transient West Country fishermen (Matthews 1968). The seventeenth century European occupation of what is now Canada was sparse and English settlement even sparser. In this sense Newfoundland has an historic resource unique in Canada and comparable only to more extensively developed New England and Chesapeake sites.

Newfoundland sites of this period have considerable archaeological potential that goes beyond provincial pride in a long history. They are valuable as industrial sites which can help to illuminate the archaeology of the fishery, they are interesting for what they can tell us about the poorly recorded consumption habits of the Early Modern working population and, from the anthropological point of view, they are intriguing because they are the remains of a complex economy with two distinct, if interrelated, residence patterns within one settlement system.

The aim of the 1986 Conception Bay Survey was to further the task of creating an inventory of Early Modern settlement sites in Newfoundland. By 1675 there were settlements all along the English Shore, that is the coast between Trepassey and Bonavista (Berry 1675). The northern side of Conception Bay was a reasonable area in which to take the next steps towards a complete inventory. There is good documentary evidence both of early settlement, for example at Cupids, and of continuous settlement, for example at Bristol's Hope (Cell 1969, 1982). Although the area is now well populated, seventeenth century material may be found in relatively undisturbed contexts even within present settlements, as recent excavations at Ferryland have demonstrated (Tuck 1985).

A survey in Conception Bay also seemed interesting since, despite documentary evidence, no early settlement sites have been verified in the area. An attempt was made some years ago to locate the site of John Guy's colony at Cupids, but even on the most liberal interpretation of the investigator's own identifications (Barakat 1974: 76ff.), the site could at best be dated ca. AD 1700. The eventual excavation of an Early Modern site in Conception Bay would certainly be of some archaeological interest. This Bay was dominated commercially by a different part of England's West Country than Ferryland, where the Memorial University Archaeology Unit has been excavating under the direction of Dr. James Tuck (this volume). Because Conception Bay trade links were with Bristol, Dartmouth and the Channel Islands rather than the North Devon ports that dominated the southern Avalon (Matthews 1968: 185), we might expect a slightly different assemblage of material culture. The comparison is of interest, for the North Devon ports exported ceramics widely (Grant 1983) and it would be useful to have some idea of the proportion of their wares at a Newfoundland harbour dominated commercially by other English ports.

METHOD

Given the limited time we had for the survey, areas to be tested had to be restricted to those for which there was an indication of permanent settlement in the seventeenth century. For purposes of the study, recurrence of the same planter family in the same harbour in the censuses of 1675 and 1676 was taken to be evidence of continuity of occupation and, therefore, an indicator of permanent settlement. Cupids was also included because of its cattle, often an indication of permanent settlement. The harbours selected are listed in Table 1, with some data from Berry's detailed census.

The actual survey fell into three phases: 1. initial reconnaissance trips, 2. intensive surveys at particular harbours with Kelly Nelmes and Pat Wells, my excellent crew, and 3. return visits with the crew to map and further test the two most promising sites. From initial reconnaissance it was apparent that there were few promising areas for a limited-budget archaeological survey at Bay Roberts, Clarke's Beach, Carbonear or in most of Harbour Grace. Modern highways and filling have obliterated the original waterfronts, the focus of seventeenth century maritime-oriented occupations. We concentrated our intensive survey therefore on the remaining harbours, spending a day or so at each, and proceeding as follows.

We chose areas to be intensively surveyed on the basis of several factors. Most important was the location of wharves and buildings on early maps of the area, especially The English Pilot's map of ca. 1689 and van Keulen's map of ca. 1720 (Figures 1 and 2.) We made an effort, usually successful, to locate residents locally regarded as knowledgeable about the history of the area and then sought their opinion of where was the longest settled part of the community. With these factors and the lie of the land in mind we then sought, and almost invariably received, permission to shovel test. We carried out surface surveys of eroding banks and other disturbed areas where these seemed promising. The location of all testing is on file at the Newfoundland Museum.

The testing of specific areas was normally systematic in the sense that we assigned survey transects and tested at arbitrary intervals (usually 5 or 10 m) but judgmentally located pits were usually dug as well. We sought in particular glass and ceramic material, including clay pipe fragments, because these materials are the most useful for dating purposes. Materials like brick, coal, bone or iron concretions were noted but not collected.

SURVEY RESULTS

Good samples of seventeenth century materials were recovered at Bristol's Hope and Clown's Cove. These are discussed in detail below, with an assessment of their significance. Testing at all locations uncovered nineteenth century material, which will not be further discussed here. I will, however, briefly assess survey results for each harbour.

Harbour Main Further testing could be fruitful. Permission to test the most promising area was refused.

Brigus Further testing could be fruitful. Shovel tests could not reach sterile soil in one promising area, while other promising areas remain untested.

Cupids The site of early seventeenth century Cupids is uncertain and will probably remain so, in the absence of contemporary maps, until a systematic survey can be mounted coordinated with research into movement of the barachois.

Port de Grave In the absence of maps and given the uncertainty of exactly where is meant by "Port de Grave" testing in this area is a hit-and-miss affair.

Bay Roberts Archaeological testing could best be done as an adjunct to machine excavation for other purposes.

Bryant's Cove Evidence of the seventeenth century occupation has probably been obliterated by the modern road.

Harbour Grace Despite documentary evidence of early use of the Point of Beach area and despite the Provincial Historic Sites plaque indicating that the Customs House Museum is at the site of Peter Easton's fort of 1611 there is no indication of early occupation of either site. Further archaeological testing in the town centre could best be accessory to other excavations.

Carbonear Archaeological testing could best be done as an adjunct to machine excavation for other purposes.

Crocker's Cove The site of seventeenth century occupation has probably been obliterated by the modern highway.

Bay de Verde In the absence of contemporary maps testing here must be hit-and-miss. The town sits on a steep gradient so, despite a relatively intensive early occupation, most archaeological material may have washed downhill into the ocean.

EXCAVATION RESULTS

BRISTOL'S HOPE

After testing a number of areas in this community, formerly known as Mosquito, our attention was drawn to a massive dry stone wall, obviously old, judging by lichen and other vegetable growth. This wall surrounded a small modern bungalow; adjacent to it stood the remains of a recently demolished house, itself of some age (Figure 3). Wharves and buildings are shown on early maps in this area, near the northern end of the barachois beach separating Mosquito Pond from Bristol's Hope Cove. Testing in the garden enclosed by this substantial wall immediately showed evidence of a seventeenth century English occupation. We returned to this site to excavate a 1 m test square, which proved to be remarkably rich in artifacts, producing about 300 finds, of which 65% appear to be of seventeenth century manufacture.

Analysis of pipe stem bores (n=99) suggests a median occupation date of about 1670 (Hanson date range 1620-1750, Oswald 1975: 92). This accords with the evidence of pipe bowl styles and marks as well as with the ceramic evidence. The predominance of case bottle fragments (Figure 4) over remains of onion bottles suggests that an important phase of the occupation occurred before the replacement of the former by the latter by about 1675 (Noel Hume 1970: 69). Together with the distinctly bimodal distribution of pipe stem bores this suggests a possible early phase in occupation c. 1640 to 1660.

Pipe styles support such an interpretation (see Figures 5-7). The lower levels of the test square yielded examples of Oswald's Type 5 bowl (1640-1660) and of Type 17 (1640-1670), while the test pits yielded examples of Type 7 and 18 (both 1660 - 1680) and Type 8 (1680-1710). One stem is marked with an unusual impressed "asterisk" trade mark. This I have not been able to match but it is of a general type Oswald (1975: 83) dates ca. 1600-1640. Another bowl shows part of an impressed name or initials "HE" (?) -- a trait Oswald dates after 1650.

Ceramics recovered are entirely consistent with occupation by seasonal fishing crews and resident planters ca. 1640 to 1700. The test square yielded remains of the following (for wares, vessel forms and dating see Pope 1986):

1 South Somerset CEW ?Collander (1450-1800)
1 Iberian CEW Olive Jar (0-1800)
1 Merida CEW Bottle (1300-1975)
1 West Country Sandy CEW Pot (1550-1650)
1 North Devon Smooth CEW Drug Jar (1600-1700) (Figure 8)
7 Tin Glazed vessels, 3 decorated in blue, 1 a magenta and blue decorated ?Saucer (1600-1750)
2 Rhenish Brown CSW Bottles (1550-1725)
1 Early London Brown CSW Pot (1650-1750)

Surface collection and shovel testing yielded comparable finds. Besides miscellaneous North Devon, Merida and Tin Glazed sherds, a number of vessels were identified:

1 North Devon Gravel Tempered CEW Pan (1450-1750) (Figure 9)
1 North Devon Gravel Tempered CEW Pipkin (1450-1750)
1 North Devon Smooth CEW Tall Pot (1550-1725)
1 West Country Sandy CEW ? Pot (1550-1650)
1 South Somerset ?Pot (1600-1800)
1 Westerwald CSW Mug (1650-1750)

The wares are typical of those excavated at West Country ports (cf. Allan 1984; Fairclough 1979; Gaskell-Brown 1979). The sample is probably not large enough to give any indication of supply from a particular port. Note that our tests recovered no Bristol-Staffordshire Slipware sherds at all. This ware is omnipresent along the North American littoral at sites dating after 1720. Its absence in the areas sampled is entirely consistent with a prior closing date for the occupation. The reasonably high proportion of Tin Glazed vessels recovered may suggest the proximity of a substantial planter household (Pope 1986: 193ff.) Vessel forms are typical of those already known to have been in use among crews and planters at Newfoundland (Pope 1986: 212 ff.), with the interesting exception of the Drug Pot.

Stratigraphy in the 75 cm deep garden soil is not distinct and most artifacts were small and fragmentary, suggesting repeated cultivation. Objects were, however, generally stratified chronologically. It appears that the soil, which is higher on the uphill or garden side of the wall, built up over the years so that as time passed successive levels were protected from cultivation by newly forming upper layers. We were unable to locate any features, other than the surrounding wall, although it must be remembered that we tested less than 1% of the site.

CLOWN'S COVE

Buildings and wharves indicated on the early maps drew our attention to one end of the barachois beach at Clown's Cove (Figure 10). We located a niche cut into a sloping hillside and shovel tests in this area produced seventeenth century material. The niche is about the size of a small house, with its longer side facing the cove. The Early Modern artifacts recovered seem to be distributed in a fan-shaped array spreading out downhill from the niche. The concentration of artifacts is not nearly as dense as at Bristol's Hope, nor is the soil nearly as deep. On the other hand the artifacts recovered are generally less worn and fragmented by cultivation.

The sample of pipe stems recovered is not large enough to be very persuasive statistically (n=41) and the mean pipe stem bore date of 1665 (Hanson date range 1620-1750, Oswald 1975: 92) should be considered very cautiously. The presence of case bottle sherds suggests that some kind of occupation did commence before 1675. Two of the pipe bowls are identifiable stylistically as Oswald Type 9 or 20 (1680-1710 or 1690-1730). One pipe bowl base is marked with single punctate dots on either side of the base (Figures 11 and 12). Such dot-marked bases were produced in Exeter ca. 1700-1730 (Fairclough 1978: 115).

The ceramic assemblage is, like the Bristol's Hope assemblage, a typical seventeenth century one which could have been supplied from a number of West Country Ports. The vessel forms are typical of those in use in Newfoundland among planters:

1 North Devon Smooth CEW ?Plate (1600-1725)
1 North Devon or South Somerset CEW ?Plate (1600-1800)
1 North Devon Gravel Temper Milk Pan (1450-1750)

1 South West(?) Micaceous CEW Bowl (1500-?) (Figure 13)
2 Merida Bottles (1300-1950)
1 Iberian(?) Tin Glazed Bowl (1500-?) (Figure 14)
1 Tin Glazed Plate, blue and magenta decorated
1 Tin Glazed Cup or Jug, blue decorated (Figure 15)

The artifacts recovered at Clown's Cove do not seem to represent as intensive or as enduring an occupation as our finds at Bristol's Hope. With the exception of the case bottle fragments, what our tests uncovered could be accounted for by an occupation by a single planter household for a few years in the period between 1680 and 1720.

DISCUSSION

The location of two Early Modern sites in Conception Bay, in the course of a short survey, indicates a number of things. First the results underline the usefulness of early maps in locating historic period sites, even if the maps somewhat postdate the period under investigation. There are other maps which could be used to assist the survey of other portions of the English Shore.

Second, there is something to be learned, I would argue, from the very comparable situation of these two sites. Each is at one end of a barachois beach, just inside the barachois within a few metres elevation from the water. Nor is this limited distribution merely a result of our survey approach: we tested many other kinds of locations. These sites could even be compared to the Ferryland sites, which are also located at one end of a beach within a few metres of salt water. Such sites were, it would seem, the first choice of the early residents of Newfoundland -- for very practical reasons.

Finally, the results of the Conception Bay Survey confirm that some of Newfoundland's Early Modern sites remain relatively undisturbed, especially in smaller communities. Such communities, coincidentally, might most benefit from and be most appropriate for suitable development of the province's Early Modern historic resources.

ACKNOWLEDGEMENTS

I would like to thank the Department of Culture, Recreation and Youth for providing the permit (86-8) and for the grant which made the survey possible, Dr. Raoul Anderson, Anthropology Department, M.U.N., for facilitating administrative arrangements, Dr. Ralph Pastore, History Department, M.U.N., for helping with the initial reconnaissance, Dr. Priscilla Renouf and Dr. James Tuck of the M.U.N. Archaeology Unit for equipment and advice , Mr. Alan Cass for sharing his research on the history of Mosquito, Mrs. Patricia Twomey of Bristol's Hope and Mr. Fred Butt of Clown's Cove for permitting extensive testing on their properties and all the other people in Conception Bay North who helped us with information or permission to dig. I owe special thanks to the crewmembers Kelly Nelmes and Pat Wells for their enthusiasm, patience and efficiency and to Peggy Barney for her renderings of the pipes and glass.

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Table 1. Conception Bay North harbours with families resident both in 1675 and 1676.

HARBOUR	**DATE NAMED**	**FAMILIES RESIDENT**	**BOATS 1675**	**CATTLE 1675**	**SEASONAL SHIPS 1675**
Harbour Main	ca. 1630	1	4	-	2
Brigus	ca. 1630	2	6	-	3
Cupids	1610	0	-	<50	2
Port de Grave#	1669	1	7	+	2
Bay Roberts	ca. 1630	1	4	30	6
Bryant's Cove	1675	1	1	-	)
Harbour Grace	1612	3	5	95	)-13
Muskeeta Cove*	ca. 1630	2	5	-	)
Carbonear	1612	5	8	100	17
Crockers Cove	1675	2	2	-	-
Clowns Cove	1675	1	1	-	-
Bay de Verde	1612	7	25	-	12

# The *grave* or beach referred to is Clarke's Beach.

+ The cattle at Cupids belonged to Mr. Butler of Port de Grave.

* Now Bristol's Hope. The location of the *original* Bristol's Hope, settled by Nicholas Guy about 1617, is uncertain.

Sources: Census of 1617 (John Berry)
Census of 1676 (CO 1/38)

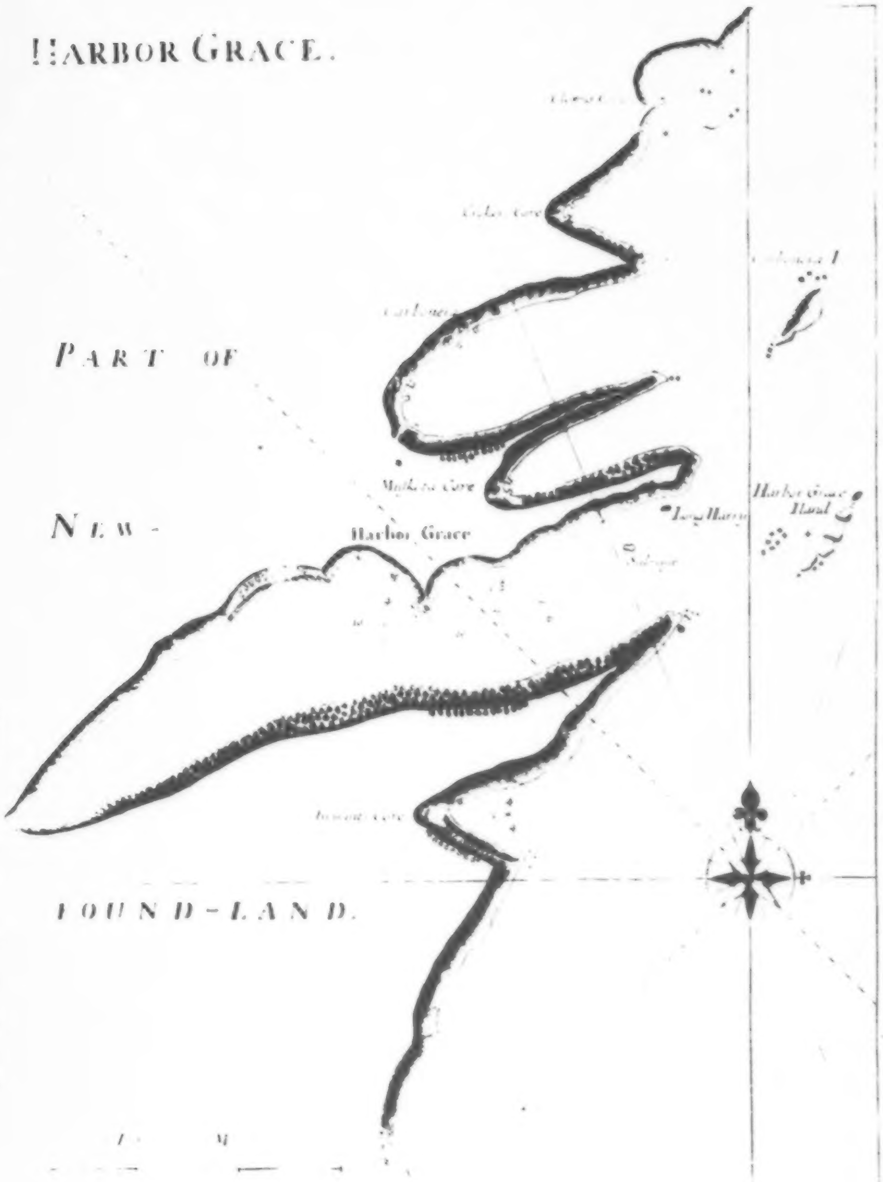

HARBOR GRACE.
PART OF
NEW-
FOUND-LAND.
Carbonear
Mulkeys Cove
Harbor Grace
Long Harry
Harbor Grace Iland

Figure 1. Harbour Grace and area, ca. 1689, from The English Pilot. Original in Centre for Newfoundland Studies (CNS map 23).

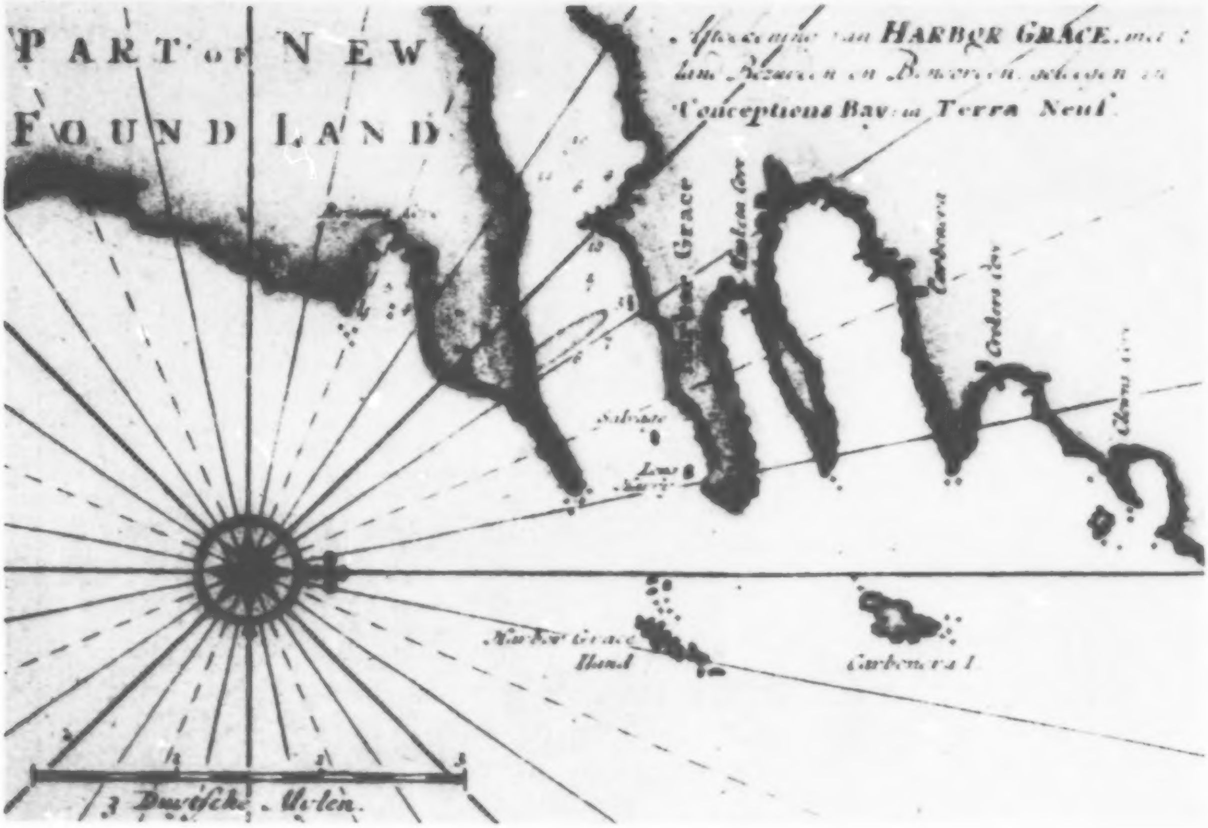

PART of NEW FOUNDLAND
HARBOR GRACE
Conceptions Bay in Terra Neuf
Grace
Carbonera
Harbour Grace Island
Carbonera I.
3 Duytsche Mylen

Figure 2. Details of Harbour Grace and area, 1720, inset from Gerard van Keulen's Newfoundland of Nieuw Vrankryk of andera Genaamt Terra Neuf. Original in Centre for Newfoundland Studies (CNS map 13).

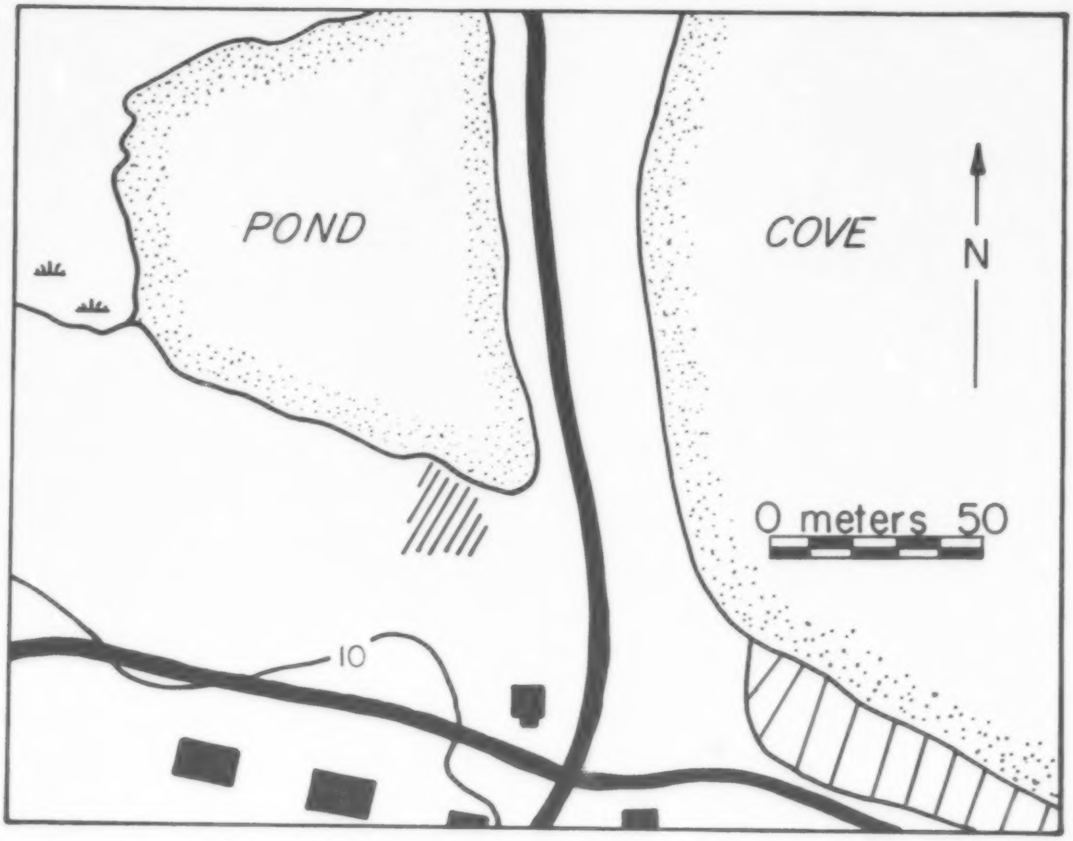

POND
COVE
N
0 meters 50
10

Figure 3. Bristol's Hope 1 (CkAh-1). The area in which tests uncovered 17th century material is shaded. Heavy broken line indicates the free stone wall. Contours shown at 10 m intervals.

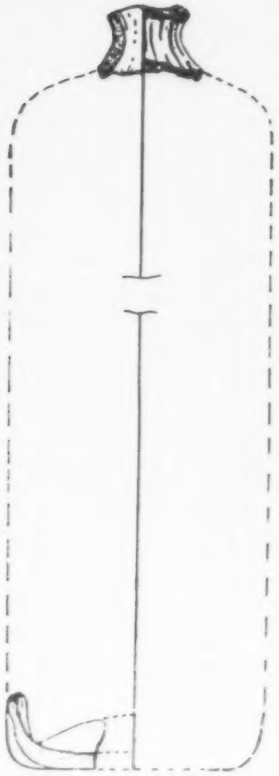
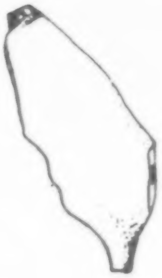
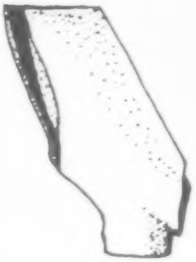


Figure 4. Mouth and base fragments of olive green Case Bottle from test square, Bristol's Hope (Scale 1:2).





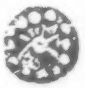


Figure 5. Pipe bowl fragment, Oswald Type 17 (1640-1670), Bristol's Hope (scale 1:1).

Figure 6. Pipe bowl fragment, Oswald Type 8 with rim parallel to stem (1680-1710), Bristol's Hope (scale 1:1).

Figure 7. Impressed "asterisk" maker's mark on a pipe stem from the bottom level of the test square at Bristol's Hope (magnified 2x).

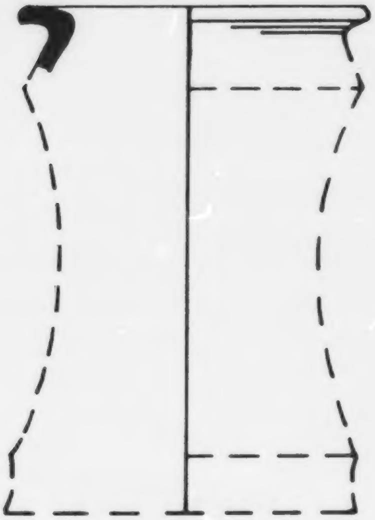


Figure 8. North Devon Smooth CEW Drug Jar. Even dark olive green glaze. Compare Allan (1984) #2192 from a context of 1660-1680 (scale 1:2).

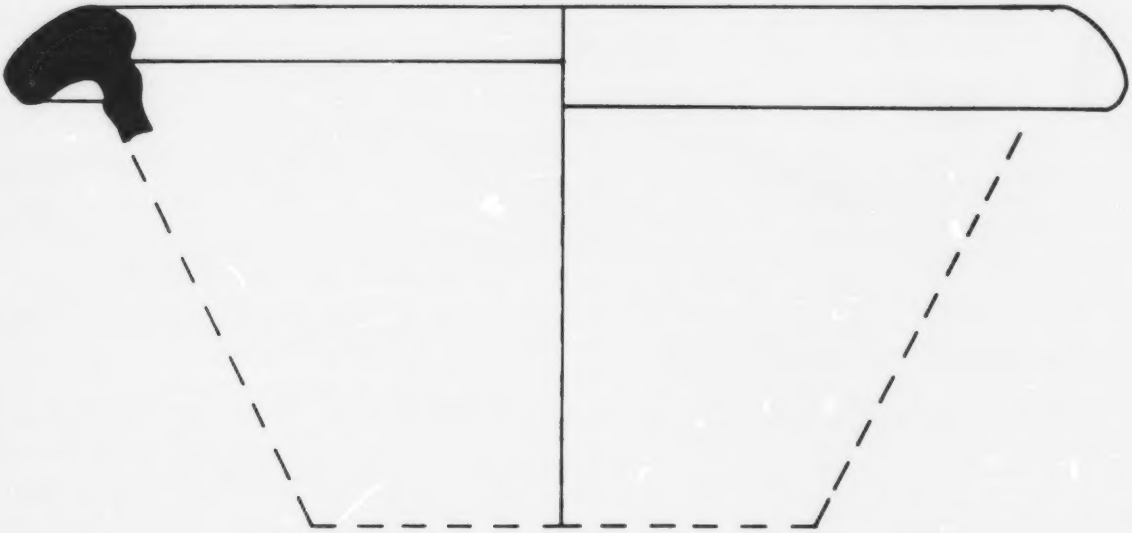


Figure 9. North Devon Gravel Tempered CEW Pan. Green/dark brown interior glaze. Compare Fairclough (1979) #339 from a 17th century context (scale 1:4).

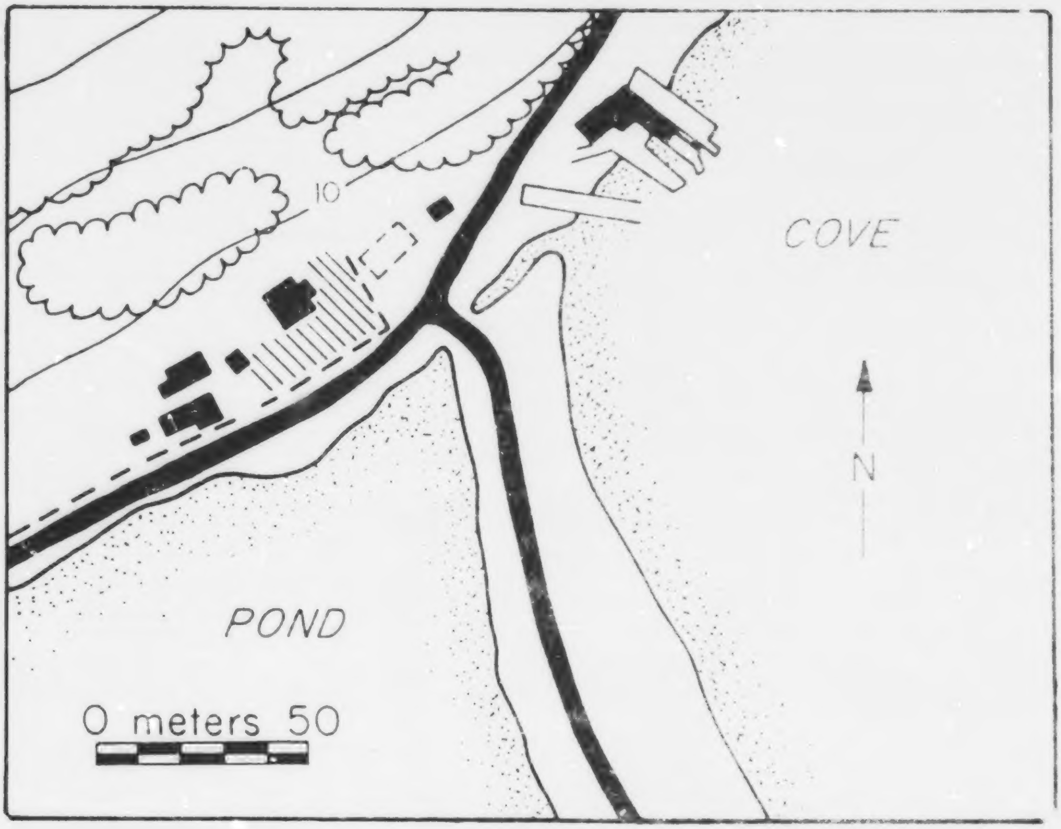
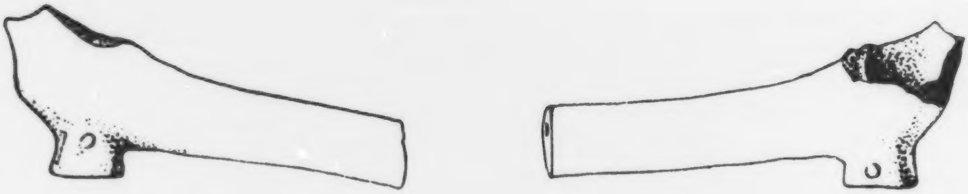

10
COVE
N
POND
0 meters 50

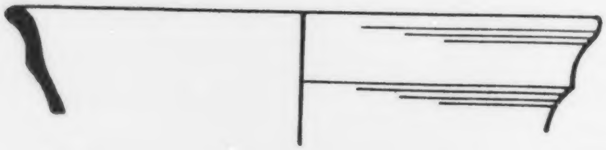
Figure 10. Clown's Cove 1 (CkAq-1). The area in which testing uncovered seventeenth material is shaded.

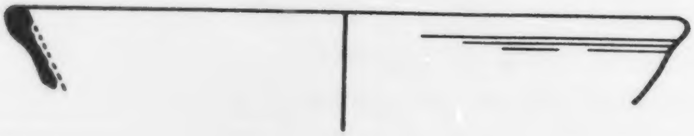
Figures 11, 12. Two views of pipe bowl base fragment featuring punctate dots on both sides of the base. Probably manufactured in Exeter ca. 1700-1730. Compare Fairclough (1979) Figure 48 #28 (scale 1:1).

Figure 13. South West(?) Micaceous CEW Bowl. Unglazed, very hard sandy, micaceous brick red fabric. Compare Allan (1984) #1717, from a context of 1500-1550 (scale 1:2).

Figure 14. Iberian(?) Tin Glazed Earthenware Bowl. Hard cream fabric with quartz inclusions, cream glaze with slight pink cast, purple grey decoration. Compare fabric and glaze with Allan (1984) #1534, 1547 from late 15th century contexts. Compare form with Fairclough (1979) #548, from a 16th century context (scale 1:2).







SKELETAL MATERIAL RETRIEVED FROM FOXTRAP

Sonja M. Jerkic
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Ed. note: Dr. Jerkic was called upon by the Royal Newfoundland Constabulary to examine the skeletal remains described below. Dr. Jerkic has performed this service for the Historic Resources Division on a number of previous occasions, for which we remain grateful.

The material recovered from Foxtrap, Conception bay on 15 April 1986, consists of both fragmentary skeletal and cultural remains. Together, it appears to indicate the burial in a coffin or coffins of two individuals, probably prior to A.D. 1900.

The two individuals represented by the skeletal remains were a young adult female and a child. Since the material for both is incomplete, determination of sex and age is somewhat tenuous. However, a female individual is indicated in the case of the adult by a wide sciatic notch and presence of a preauricular sulcus on the left innominate. This determination is supported by the short length and gracility of the remaining bones -- right and left femora, right tibia, right fibula and left radius -- females generally being smaller and lighter than males. An age estimate of 18-20 years is based on x-rays of the long bones in which the epiphyses are nearly completely fused to the shafts.

The child is represented by fragments of skull, rib and vertebrae and a nearly complete maxilla. Sex determination of even complete remains of immature individuals is debatable, so it was not pursued here. Age estimation based on tooth eruption indicated the child was between 2 and 6 years old, probably around 4 years old at time of death.

Race cannot be determined conclusively from this material. However, the location of the burial and presence of coffins would lend credence to the two being Europeans.

A date of pre-1900 is based solely on the coffin nails which were recovered. After the nails had been cleaned in the Archaeology labs at Memorial University, it could be seen that they were hand-forged. According to Dr. James Tuck, this technique ended in much of North America by the late 18th century and hand-made nails were replaced by cut nails. In Newfoundland, however, hand-forging continued until at least the 1920s. In spite of this, we give a pre-1900 date to the burials because the proximity of Foxtrap to St. John's would have made it more likely that people might have easily acquired cut nails earlier. Furthermore, the very presence of two isolated burials, not part of a cemetery, would argue for an even earlier date when there were no churches or cemeteries present. The dead would then have been likely to be buried on family land in small clusters such as this.

Inventory

ADULT FEMALE

right femur
left femur
right tibia
right fibula
left radius
3 metatarsal fragments
left talus
right and left innominate fragments
three rib fragments
miscellaneous fragments

CHILD

right and left maxilla
sphenoid
13 skull fragments
15 neural arch fragments of vertebrae
1 right molar
miscellaneous fragments

A REPORT ON CONSTRUCTION ACTIVITIES IN THE GEORGE STREET AREA, ST. JOHN'S, SEPTEMBER - DECEMBER, 1986

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BACKGROUND

In early September of 1986, it was learned that the City of St. John's was planning to renovate the George Street area. Since this is one of the older portions of the city (Figure 1), it was feared that the planned work might result in the disturbance or destruction of archaeologically significant information. To determine the extent of the proposed work and to obtain permission to monitor construction activities, the firm of Frederick Hann Associates Ltd. was approached. Frederick Hann Associates were extremely helpful and promised their full cooperation. A research permit (86-23) was obtained from the Historic Resources Division, Department of Culture, Recreation and Youth.

OBSERVATIONS

On-site personnel were informed about the nature of our interest and agreed to keep us posted about developments of potential significance. In addition, it was planned to visit the site twice a week until construction ended.

During the period September-December 1986, a number of renovative efforts involving excavation were carried out. Among the most important were the repaving of George Street from Adelaide Street to 12 George Street; the construction of the associated sidewalks along George Street from Adelaide Street to Water Street including the east side of Adelaide between Water and New Gower Streets; both sides of Williams Lane between George and New Gower Streets; and the construction of catch basins along repaved portions and footings for light poles.

In only one case did these excavations extend beneath what appeared to be fill. In that instance, on September 25, the excavation of a sidewalk running along the west side of Williams Lane revealed the outer edge of a course of bricks which might represent the wall of a structure. The bricks appeared to date to the 19th century or later. The structure itself, if that is what it was, seemed to be in no danger of serious disturbance. No other artifacts were seen in association with the bricks.

Inspection of excavated material (none of which was collected) from other excavated areas revealed pieces of sewer pipe, a few cow long bones showing evidence of butchering, and large quantities of semi-vitreous ceramics and moulded glass bottle fragments. None of this material is believed to predate the middle of the 19th century.

On only one occasion did construction workers come upon anything of possible significance. On October 8, a call was received from Mr. Mark Setter, of Frederick Hann Associates, who reported that construction workers had uncovered a grave marked by a tombstone dating to 1866. A three-person crew responded to inspect the site but found only a tombstone dating to 1866, inscribed with the name "Whitteford". The stone was missing one corner and the break was clearly not recent. The stone had been incorporated into the sill of the Greensleeves Pub at 14 George Street, and it is believed that it was a defective marker that had been discarded by its makers and later used in construction of the building where it now remains.

CONCLUSIONS

During the course of our observation of the George Street renovation, no evidence of the destruction of archaeologically significant information was noted. No artifacts older that the 19th century were observed and no serious disturbance of any structure was found. It is true that the limitations of a full teaching schedule prevented continuous monitoring of construction activities, and it is possible that potentially destructive actions did occur, but the willingness of Frederick Hann Associates to notify us of potential disturbances was reassuring.

RECOMMENDATIONS

According to the St. John's Retail Core Area Design Study (August 1985), prepared by Philip Pratt, Frederick Hann Associates, Ltd., and Structural Consultants Ltd., there are a number of proposed sites along George Street scheduled for infilling. It is believed that the greatest danger to sites of potential significance will come from such infill construction, rather than from street and sidewalk paving. Before construction recommences in the spring of 1987, therefore, it might be useful to request Frederick Hann Associates to notify the Historic Resources Division of their starting date and to alert the Division in the event that they encounter archaeologically significant structures or artifacts. Given their past record of cooperation, they should be willing to do this.

ACKNOWLEDGEMENTS

I would like to thank Mr. Frederick Hann and Mr. Mark Setter of Frederick Hann Associates, and Mr. Harold Burke, the on-site Contracting Superintendant, for their cooperation and assistance.

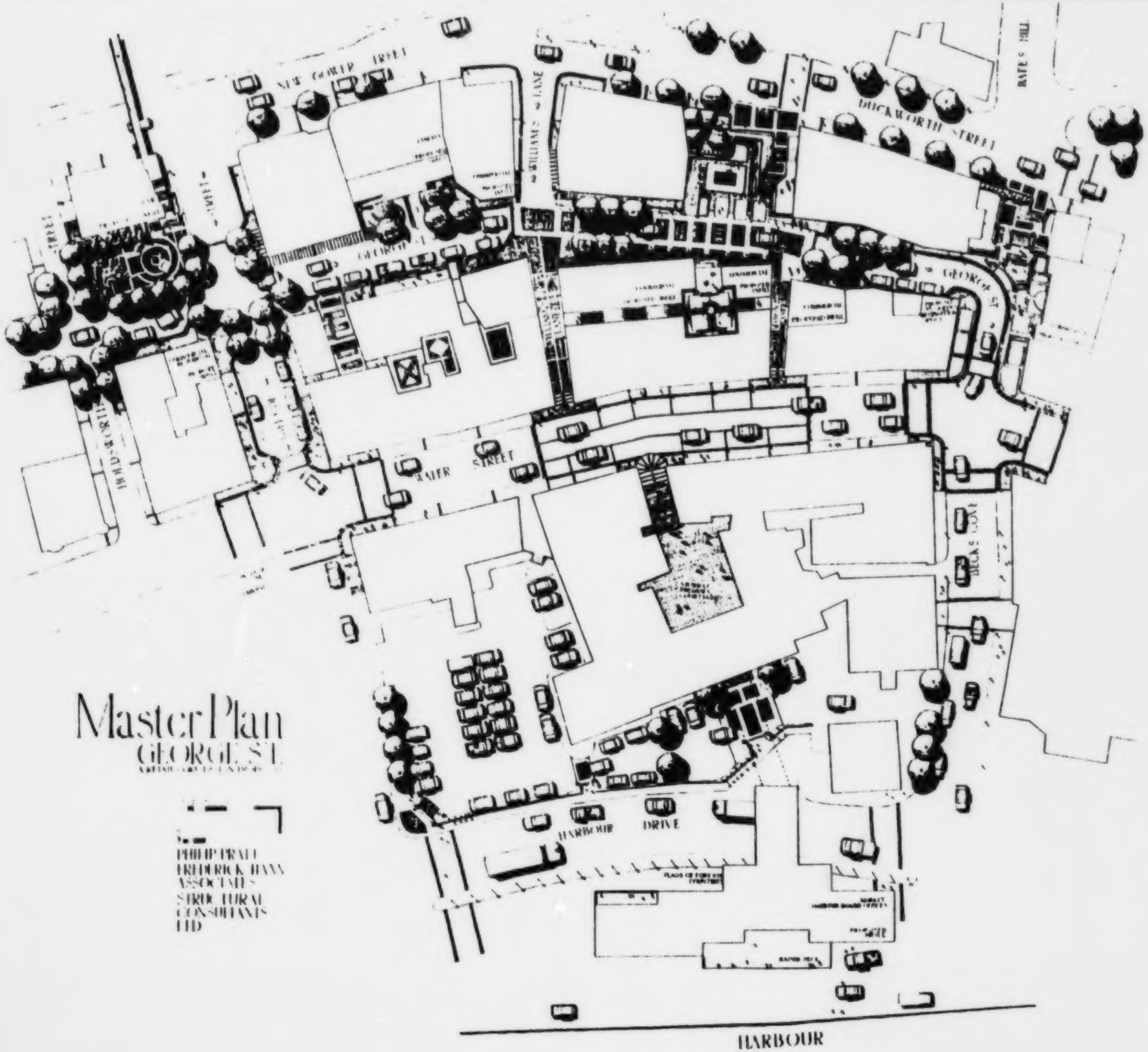
NEW GOWER STREET
WILLIAMS LANE
DUCKWORTH STREET
BATES HILL
GEORGE ST
GEORGE ST
WATER STREET
BECKS COVE
HOLDSWORTH
HARBOUR DRIVE
HARBOUR
Master Plan
GEORGE ST
PHILIP PRATT
FREDERICK HANN
ASSOCIATES
STRUCTURAL
CONSULTANTS
LTD

Fig. 4.5.1 The Master Plan

26 - Retail Core Area Design Study

Figure 1. George Street renovation area, St. John's.

EXCAVATIONS AT FERRYLAND, NEWFOUNDLAND - 1986

James A. Tuck
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INTRODUCTION

For six weeks during September and October 1986 a crew of seven continued excavations at Ferryland, about 80 km south of St. John's. Work resumed at the site of a smithy, believed to date from the early days of the Colony of Avalon, founded by George Calvert in 1621. Excavations were also begun at a second location, immediately adjacent to the eastern edge of the inner harbour, known as "The Pool", where additional evidence of occupation during and before the 17th century was exposed. Perhaps the outstanding result of the 1986 excavations was the realization that the Ferryland site is far more productive and complex than we had previously imagined. These facts will become evident in the brief discussion which follows.

1986 EXCAVATIONS

As described previously (Tuck and Robbins 1986), the smithy discovered during the fall of 1985 was apparently constructed by digging a room about 12 feet wide into a gently sloping hillside which parallels the shore of The Pool. It appears subsequently to have served as a repository for refuse dating to the mid-17th century and the remaining depression was later capped with earth. Excavations during the fall of 1985 proceeded into the hillside to the edge of the property on which the current landowner, Mrs. Veronica Williams, kindly allowed us to excavate. A subsequent collapse of the unstable bank, over the winter of 1985-86, allowed excavation to proceed further into the bank but the full extent of the original excavation has yet to be determined. During the 1986 season a low wall built across the mouth of the original excavation, also presumably in the mid-17th century, was removed and the floor cleared in at least some places to what appears to be sterile subsoil. Those places where subsoil was not reached are covered by a thick, and virtually impenetrable, deposit of concreted iron, slag, and scale clearly resulting from the activities of the smith. The forge itself was more fully exposed, confirming that it consists of a well-made slate structure measuring almost exactly four by six feet (Imperial measurements are here employed in describing the original constructions since that is the system under which the construction took place). In places the remaining structure is upwards of 50 cm high. Fragments found out of place on the top of the forge suggest that the upper courses of the structure may have been made from brick.

What we believe was the original dirt floor of the forge was littered with fragments of ceramics, glass, tobacco pipes, and slag, iron objects, and other refuse from the smithing activities, as well as bits of copper, lead, and chert, the last presumably a result of the local manufacture of gunflints. Datable artifacts have been provisionally assigned to the second quarter of the 17th century suggesting that the forge may be that completed by Calvert's resident supervisor, Capt. Edward Wynne, in the summer of 1622 (Wynne 1622). Little remains of the structure itself, except nails, a few minute fragments of poorly-preserved wood which may or may not represent structural members, and several small post molds which probably relate to interior bracing or other constructions rather than to the exterior of the smithy. Somewhat puzzling is the absence of evidence, at least to date, of any well defined front wall. It is conceivable that the structure was open on that end, in the fashion of at least some other smithies from the same period. Considerable numbers of roof slates, mostly fragmentary, indicate that a slate roof was installed sometime during the second quarter of the 17th century.

Excavations to the north and east of the forge at a level, low-lying area immediately adjacent to The Pool provided additional evidence of the richness and complexity of the Ferryland site. The landowners, Messrs. Ray Costello and Leo Walsh kindly allowed us to remove several fish flakes from the area to be excavated as well as to saw through their firewood pile in order to pursue a buried wall. Portions of a large stone foundation were uncovered in the upper levels of the deposit. As shown in Figure 1, it measures at least 50 by 20 feet with the long axis, as presently known, oriented almost perfectly north-south. The walls themselves are made from locally available slate, carefully fitted together, and measure approximately two feet in thickness. No builders' trench was apparent in any of the excavated areas.

The walls appear to have been built directly upon a layer of sterile fill deposited over the entire area, a situation common to both areas thus far explored at Ferryland. As shown in Figure 1, the form of the walls is complex and only additional excavation will ultimately reveal the structure's true form and dimensions. At the extreme north end of the structure there is a small, deep cellar-like structure incorporated into the dry masonry which constitutes the foundation. It measures four by ten feet and appears to be at least 80 cm deep. The floor of the cellar has not yet been found, since the lower levels of the site are subject to almost continual flooding. A small masonry tunnel, about a foot wide and 18 inches high, leads from the south end of this feature beneath a level stone platform for a distance of at least six feet. Comparable features do not seem to have been reported from other 17th century sites in North America, hence we will have to await further excavations to understand the function of these features and their relation to the larger stone foundation.

The function of the entire structure is, unfortunately, no more understandable than that of the small cellar and tunnel. Thus far no trace of fireplaces has been found, features which would certainly have been present in any dwelling. It is possible that they are there but that our excavations have not proceeded far enough to expose them. On the other hand, the ceramics, glass, and other domestic refuse apparently associated with the occupation of the structure do not argue for other than domestic use. Nor does the structure fit any of the known descriptions of buildings erected during the first years of activity at the Colony of Avalon. The largest structure mentioned by Capt. Wynne is the "mansion house" built for the eventual occupation of Calvert and his family. It is said to have measured 44 by 15 feet (Wynne 1622), considerably smaller than the portions of foundation thus far uncovered. It seems doubtful whether Wynne would have understated the dimensions of his construction efforts in reports to his employer. The structure does, however, appear to date to the early years of the colony, as the following description of the stratigraphy indicates.

When we began excavations at this area we expected to discover a fairly straightforward stratigraphic situation with the 1621 remains resting on sterile subsoil and more recent material above them. In fact, no fewer than

13 strata, both post- and pre-dating what we take to be the remains of the Colony of Avalon were discovered (see Figure 2). Admittedly this is based upon the excavation of only a single one-metre trench for a distance of about ten metres through the site; at least some of the identified strata may prove ultimately to be localized lenses rather than occupation or other layers covering the entire area. In either case the stratigraphy is extremely complex although it does offer some suggestions regarding utilization of Ferryland Harbour.

Stratum 1 consists of a mixture of disturbed garden soil which includes sediments dredged from the edges of The Pool within the last several decades. It is a thoroughly mixed deposit containing material dating between the 17th and 20th centuries, with the 17th century much better represented. Curiously, there is a notable lack of material originating from the 18th century, perhaps reflecting a change in the main settlement at Ferryland away from The Pool during that time.

Stratum 2 is an intermittent layer of garden soil uncontaminated by fill from The Pool which contains the same admixture of material noted in Stratum 1. It does not appear in the profile reproduced as Figure 2 since it was not present in that area.

Stratum 1A is somewhat more instructive. It consists of whole and broken roofing slates; fragments of the same slate from which the large foundation was constructed; and nails, ceramics, glass, tobacco pipes and other material provisionally dated to the mid- to late 17th century. All of this material is contained in a layer of brown soil with large amounts of wood charcoal. Its importance lies in the fact that it overlies the ruins of the large foundation (designated "A" on Figure 2). Therefore the building must have been destroyed or dismantled prior to the deposition of this stratum, or some time in the latter half of the 17th century if the preliminary assessment of the artifacts is correct. Indeed, many of the objects found in Stratum 1A — nails, roofing slates, and fragments of the walls themselves -- appear to have been part of whatever structure once surmounted the remains of the walls we have uncovered.

The so-called "cellar" also contained a wealth of material which seems chronologically equivalent to Stratum 1A. This includes nails, whole and broken roofing slates, North Devon coarse earthenwares and other ceramics, square case bottles, tobacco pipes, fragments of textile and wood, and lumps of pitch. All appear to date from the third quarter of the 17th century despite a pipe bore diameter date of about 1643, which is thought to reflect difficulties with the dating technique when applied to samples from the 17th century. A 1650 to 1675 date for the destruction of the building seems more reasonable. Also found in and around the cellar were more than two dozen cast iron cannon shot of five different sizes. It is tempting to argue that these, as well as the large amounts of charcoal scattered throughout Stratum 1A, are related to the destruction of the place. It is further tempting to suggest that they may be evidence of the Dutch destruction of Ferryland in 1673, at which time Governor Lovelace of New York, a captive aboard one of the Dutch vessels reported that the settlement was "...plundered, ruined, fired, and destroyed..." (Lovelace 1673).

Stratum 3 is the upper portion of an otherwise sterile yellow to light brown clay fill containing unrolled gravel and small fragments of rocks (Stratum 3A) which resembles the subsoil from other areas of the site. Stratum 3, however, is distinguished from Stratum 3A by virtue of the presence of ceramics, glass, tobacco pipes, and other artifacts which appear to date from the second quarter of the 17th century. In many places these are extremely fragmented, apparently by having been trampled into the otherwise sterile stratum 3A, suggesting that Stratum 3 may represent an occupation floor related to the foundation. In one area, however, Stratum 3 overlies the remains of the foundation. If this is not an anomaly resulting somehow from wash or some other later mechanical activity it indicates that the structure was destroyed even earlier than suggested above.

Stratum 3, as mentioned above, is a sterile layer of subsoil which appears to have been transported to the area as part of a land leveling, and perhaps reclamation, project. It may have been carried from excavations made into the nearby hillside, such as that which contains the smithy, or to have resulted from other excavations such as those mentioned by Capt. Wynne (1622) for a cellar and "kitchin roome". It presently seems as though level land immediately surrounding The Pool was at a premium and a considerable amount of effort was expended in cutting and filling to create suitable building locations as the colony expanded. It is significant that Stratum 3 is banked up against the walls of the large foundation, and in places underlies it. It seems, therefore, that the construction of the large stone walls was done concurrently with the land leveling or filling.

Stratum 4 is a layer of wet greasy clay of various colours in which there were preserved fragments of almost completely disintegrated wood and other organic matter. This layer contained sherds of coarse earthenwares, again mostly or entirely of North Devon origin, and some very small tobacco pipes with bowl forms similar to the "little ladell" styles identified elsewhere as of late 16th to early 17th century origin (cf. Noel Hume 1970: 296). Strata 4A and 4B appear to be fill deposits of various clays intermixed with gravel. They surround and underlie a segment of wall (indicated by "B" on Figure 2) comprised of large unmodified boulders which, from the one-metre segment exposed, appears to be of a very different character than the overlying foundation. This segment of wall originated at the time that the fills were deposited and appears to have been part of a structure in use at the time the ceramics and tobacco pipes from Stratum 4 were deposited, some time in the late 16th century or early 17th centuries, or prior to the establishment of the Colony of Avalon. The discovery of such early occupations should come as no surprise for Ferryland Harbour was well known to English fishermen during most, if not all, of the 16th century.

Stratum 5 is a layer of what appears to be largely organic material ranging in colour from brown at the south end of the excavation to grey at the north. It contained sherds of coarse earthenware, including several large fragments of a North Devon storage or cooking pot, and tobacco pipe stems but no bowls or bowl fragments.

Stratum 6 is a layer of fill similar to that in Stratum 3A except that it appeared to have a somewhat greenish tinge. It, too, appears to be a fill or wash since it is devoid of cultural material, at least in the few square metres exposed during 1986.

Stratum 6A consists of a water saturated deposit containing fire-broken rock, charcoal, flakes of a low grade chert, and a broken biface, probably of Indian origin. It appeared at the time of excavation that the material was in place, although it is conceivable that it, too, represents a redeposition from some nearby part of the site. Present evidence, however, indicates that the deposit is, in fact, in situ. If this is the case it will be the first evidence of Indian people on the east coast of the Avalon Peninsula which seems otherwise virtually devoid of native populations throughout the prehistoric period. Underlying strata (see below) have produced evidence of prior European occupation suggesting that the Indian visit to Ferryland may have been to obtain European materials, either through trade or, more likely, by pilfering from seasonally-abandoned fishing premises.

Stratum 7 consists of a thin layer of what appears to be disintegrated fish bone, probably the refuse from cod splitting. In the area excavated the bone was too poorly preserved to allow identification of either species or what skeletal elements were present. Artifacts associated with this deposit are limited to sherds of North Devon coarse earthenwares. Perhaps significantly, no tobacco pipes have been recovered. Again, the area excavated to Stratum 7 is small but if pipes are absent from the deposit it suggests that the ceramics were deposited some time prior to the 1570s when tobacco smoking became popular among Europeans (Noel Hume 1970: 296).

Stratum 8 and Stratum 8A are beach gravels. The latter has a somewhat higher organic content than the former which may reflect some cultural activity. A few sherds of coarse earthenwares were found within these layers, indicating that Europeans were present while the beach gravels were exposed.

CONCLUSIONS

Complex as it is, the stratigraphy at the Ferryland site does allow a few tentative conclusions about the sequence of occupation there, including European fishermen in the 16th century, visits by native people, the establishment of the colony of Avalon, and perhaps its destruction by the Dutch in the latter half of the 17th century. While this is a very bare summary of the history of the area it does point out the potential of the site for understanding something not only about George Calvert's plantation but about some of the activities of earlier European visitors to the site and perhaps their relations with native people.

Throughout the 1986 field season it became increasingly clear that the Ferryland site is not only one of the most promising historic sites in the province, but also that it is one of the most productive. The number of individual specimens recovered numbers in the thousands and includes almost every material available to Europeans in the 16th and 17th centuries. In these facts lies a major problem in continuing the excavations. The amount of material recovered from the 1986 work, and that certain to be produced by future excavations, is far beyond our conservation capabilities. We have decided, therefore, that the material is probably safer where it is, and where it has been for the last three or four hundred years.

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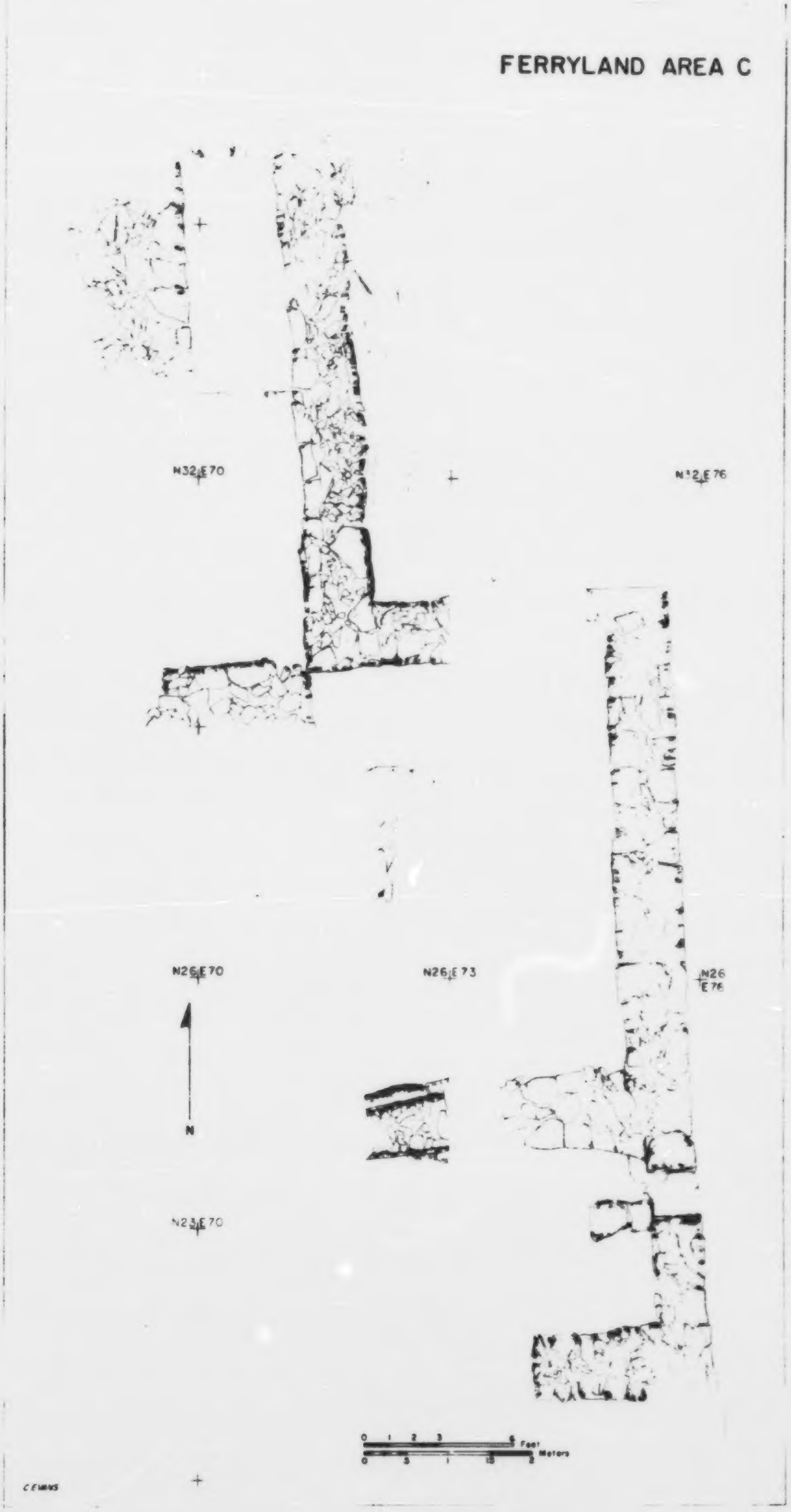
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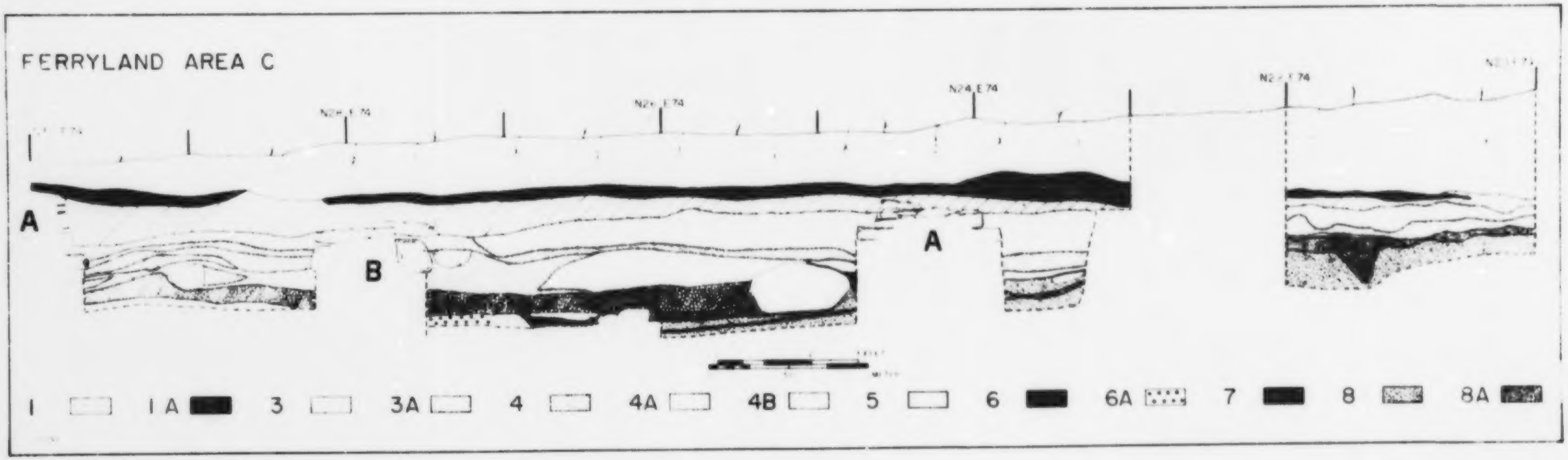
C EVANS

Figure 1. Plan of excavations at Ferryland, Area C.

Figure 2. North-south profile through Area C. The letter "A" denotes walls thought to date from the first half of the 17th century. "B" indicates an earlier construction of which only a one-metre segment was exposed during 1986.


FERRYLAND AREA C
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8A

THE PORT KIRWAN PROJECT 1986

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INTRODUCTION

Port Kirwan is a small fishing community on the north side of Fermeuse Harbour, located 97 km south of St. John's on the east coast of the Avalon Peninsula of Newfoundland (Figure 1). The community was named in honour of Rev. Mother Mary Bernard Kirwan of the Presentation Convent of Galway, Ireland, who founded a convent there in 1853. Formerly, Port Kirwan was named Admiral's Cove and is recognized to have been the first choice of the best fishing rooms in Fermeuse. Since another Admiral's Cove is to be found nearer to St. John's, to avoid difficulties in postal communications the name was changed to Port Kirwan.

The people in Port Kirwan, population 164 (1981 census), remain very close to the fishery. Since 1978 residents have built a community stage, construction of a new fish plant has been completed and the wharf has been extended into deeper water. This development has altered the cove and shipping activities have been concentrated near to the fish plant. Only a few stages remain on the northwest shore and small boats are moored in the nearby sheltered anchorage. Most of the stages and flakes seen in the 1970s have been pulled down from the beach area.

Although divers have explored Admiral's Cove since 1976, the wreck at the entrance to the cove was not located until February 5, 1983. Dr. Jim Melling discovered the site in 26 m depth of water, but did not officially report the matter to the provincial government until November 1986. The Minister, Department of Culture, Recreation and Youth, wrote to thank Dr. Melling for reporting the site. The Newfoundland Marine Archaeology Society (NMAS) was introduced to the wreck at Port Kirwan in 1985, when two divers felt that the potential historical significance of the site should be investigated in a responsible manner. Although diving conditions were difficult, two dives were made on the site and the NMAS determined that a predisturbance survey should be undertaken.

This paper presents the preliminary results of the Port Kirwan Project 1986. It is apparent that several divers have visited the site since the initial discovery; however, there is little evidence that the site has been stripped. Some artifacts have been raised by sport divers and others have been disturbed on the seabed. Divers are requested to register artifacts in their possession under the provisions of The Historic Resources Act (1985). It should be stressed that the Port Kirwan Project 1986 would not have been possible without considerable assistance from the diving community on the east coast of Newfoundland.

It was necessary to map the exposed features on the site in reduced visibility by nondestructive means and to assess the surrounding activity areas in Admiral's Cove. Since the site is in deep water, it was necessary to establish safe diving rules; on-site training in archaeological concepts and techniques were introduced to all new members on the dive team (see Appendix).

OBJECTIVES

The primary objectives of the survey were to define the nature and extent of the wreck site in Admiral's Cove, to provide a relevant resource data base, and to examine the significance of the site in relation to early settlement and economic activities in Fermeuse. A research plan and methodology were designed appropriate to the specific requirements of the site and which could be utilized on other sites to produce comparative data.

PRELIMINARY FINDINGS

In the short time allowed for the survey in 1986, a remarkable amount of data was collected. The provenience of two wreck sites was determined in Fermeuse Harbour (Figure 1). The wreck site in Admiral's Cove (CfAf-1) lies in 25-27 m of water, approximately 217 m from the public wharf at Port Kirwan. The second wreck (CfAf-3) lies at 8.6 m, within 20 m of the shore on the south side at the bottom of Fermeuse Harbour. Both wooden wrecks lie in a thick deposit of biogenous mud

Figure 2 is the initial site plan of the wreck at Admiral's Cove (CfAf-1). The 30 m datum line is laid on an approximate east/west axis. The exposed hull and wreck material appears to extend over an area of 160 m^2. One large timber (S2) is at least 14 m in length and goes beneath the main ballast mound. This timber has a maximum width of 40 cm and a depth of 40+ cm. It is severely abraded in places. Near to the ballast mound there is some indication that frames pass over S2. Alternatively, these could be riders. No mast step was located. The dimensions and form of S2 suggest the keel, or possibly the keelson, of the vessel.

At the eastern end of the site are rising timbers (S1). The grain and upward turn of the largest structure could indicate a substantial knee or the turn of the keelson. It is sloped approximately 30^{0} from the horizontal, towards the north side of the site. It was not possible to determine if S1 was fastened to S2, but probing indicated that the largest structure could be continuous with S2. This could support the hypothesis that S2 is the keelson. None of the other rising timber in S1 appears to be large enough to be the stern post. However, S1 does locate the termination of visible heavy structural mambers of the vessel, and could indicate rising deadwood in the stem. A line of abraded ends of planking similarly terminates at the eastern end of the site.

A line of frames projects along the northern length of the site and another structural timber (S3) became apparent (Figure 2). S3 extends along the length of the site , almost parallel with S1/S2, and could be inner waling. It is separated from S1/S2 by an area of mud. Impressions in the smooth surface of the substrate indicate structural integrity between both features.

The predisturbance survey needs to be continued to satisfy many questions in relation to the ship's construction. There are indications that the stern of the ship is located at the eastern end of the site and S1/S2 is the keel/keelson, which may provide the partial length of the vessel. If this is correct, the vessel is lying on its starboard side, with the probability that armament, deck fittings , remains of superstructure, masts and rigging would be found on the northern edge of the site. The disposition of the port side of the vessel is unknown because it is not exposed to the surface. It could have broken away, or be enveloped in mud on the south side of the site.

The main ballast mound (Figure 2) is approximately 1 m high and is estimated to weigh a minimum of 20 to 25 tons. The location and dimensions of this ballast mound are indications of the heavy construction of the stem of the vessel. It is possible that ballast could cover the mast step. The size of the rocks is variable, but they are angular and not water-worn. It could be quarried material, selected to reduce movement in the hold of the ship and to support the cargo. Additional rocks are distributed along the length of the site, between the frames, and in another concentration of a single layer over ceiling planking near gun 4.

Seven samples of small rocks were selected from the main ballast mound. However, much larger rocks, concreted together with incrustations were seen in the mound. Thus it is realized that the sample is not representative of the entire ballast carried. Analysis has shown that all samples are grey, fine-grained limestone not indigenous to Fermeuse. Microfossils found by thin-sectioning the ballast suggest an origin near Plymouth, England (Dr. Bob Stevens personal communication).

Seven iron guns were located on the site. Most were found partially buried in the mud. The provenience of each gun was plotted by triangulation (Figure 2). The guns are incrusted with coralline seaweed and concretions, which prevented the divers from taking accurate basic measurements. However, it was possible to record the lengths of three guns. Using comparative methods, guns 1, 4 and 5 were found to be of similar size (7.5 - 8 ft). Guns 6 and 7 are concreted together which precluded most measurements. The guns appeared to have little moulding and photography proved to tbe the only method to show reinforcement.

Trunnion could be located on three guns. In each case, the placement of trunnion is not central to the axis of the bore of the gun. This can infer 17th century gun technology. Three guns were found to have the muzzle exposed and each appeared to be plugged. Tampions could have been in place but this was not tested. Corrosion of the iron, to the point of graphitization, appears to have occurred at the ends of the guns. This fact supports recommendations that iron guns should not be used as anchorage points for dive boats.

One incrusted anchor was located in the mud (Figure 2). The length from shaft to crown measured 250 cm (8.2 ft) and the distance between the flukes 140 cm (4.5 ft). No ring could be found, only two projections at the flattened end of the shaft. No remains of the stock could be seen. The fluke of another anchor was found on the main ballast mound. No other anchors were located during the survey, but the approximate location of a similar anchor (to the north of the site) was provided by a diver who had explored the harbour on earlier occasions. It is possible that the anchors are intrusive to this site. However, if it is shown that the identified anchors are from the wreck, it might be inferred that the bow of the vessel is headed to the west.

On the surface of the site a number of arfifacts were identified in situ and within the hull. These included lead scupper liners, iron shot, a deep water sounding lead (Figure 3), a brass pestle (?) (Figure 4), a grindstone, a lice comb, a leather shoe/boot, a clay pipe stem, various earthenwares (Figure 5), and a limited quantity of glass (Figures 6 and 7). It proved difficult to relocate artifacts and record provenience in low visibility. No evidence was found of rigging, cordage, barrel staves, or obvious quantities of fish bones.

Once conservation and provenience of selected artifacts could be assured, a few items were raised. Many of the artifacts that had been identified could be attributed a 17th century origin. However, the registration of two tin-glazed earthenwares provided clearer chronological indicators.

DISCUSSION

Archaeological evidence from this predisturbance survey indicates that a comparatively large, armed vessel was lost in the 17th century at Admiral's Cove, Fermeuse. In 1600 English migratory fishermen dominated the area; early in the fishery Fermeuse was favoured by merchants and fishermen from Bideford and Barnstable in North Devon (Matthews 1973: 274). James Yonge (Poynter 1963: 56) reported seven Barnstable men at Fermeuse in 1663 and in addition provided a description and map of the area, which gives details of the anchorage points and places where Planters established settlement. The English Pilot of 1689 provides further documentary evidence that a Planter occupied the north side of Admiral's Cove, and locates the Admiral's Place and the anchorage point. The 1675 and 1677 census returns provide comprehensive data of the extent of English settlement in that period, with settled population being augmented by men from the English shipping fleets throughout the century (Handcock 1977: 16-17).

The summer population was considerably higher than that supported in the winter months. The North Devon ports reduced the migratory fishery by the 1730s (Head 1976: 153) and by 1763 the area was dominated by vessels of Dartmouth. At the same time there was an increase in the Irish Catholic population. However, there is little indication from the artifactual remains that the wreck at Port Kirwan was of North or South Devon origin. It appears to be considerably larger than the average fishing ships from North Devon (1697, 1698 shipping returns, Blatwayt Papers). It could instead be a sack ship or privateer. Until closer chronological indicators are found, further documentary research is undertaken, and the predisturbance survey is continued in relation to shoreline studies, it is not possible to determine the nationality of the vessel. Although the area was known as the "English Shore", hostilities with different nationals and privateering was common throughout the 17th century. Therefore, no speculation will be made at this time.

The location of the wreck at Admiral's Cove, appearing to face to the southwest, indicates that the vessel could have been at anchor, having visual contact with the entrance to the harbour and across to Kingman's Cove (Vice Admiral's Cove). This is a suitable deep water anchorage, although greater protection would have been afforded if the vessel were further into Admiral's Cove as indicated by Yonge and in the English Pilot. Some material thrown from ships at anchor could be intrusive to site CfAf-1. Closer to the northwest shore are quantities of modern glass and ceramics and coarse earthenwares of possible North Devon or Mediterranean origin. These items could be debris thrown from stages close to shore or from the vessels in the shallower anchorage. Information from divers who have recovered artifacts from the area could fill in these data gaps; registration can be arranged under provisions in The Historic Resources Act (1985).

The earliest reference to Fermeuse appears in Portuguese sources from a manuscript chart by Pedro Reinel in 1519 (Seary 1971). It appears that Fermeuse was known to English venturers before 1583, since it is recorded as the area for a rendezvous for Sir Humphrey Gilbert's expedition (Quinn 1940: 394). An early description of Fermeuse is provided in 1622 in "Richard Whitbourne's invitation" (Cell 1982: 207). At that time "aboue 20 Saile of English Ships [and] divers Portugall Ships" came into that harbour annually, for it was a good place to salt and dry fish and could be easily defended. It is not until the 18th century that documentary sources provide accounts of vessels being lost at Fermeuse Harbour. However, it is predictable that vessels would have been lost from earlier times.

Divers have indicated that numerous wrecks have been found in Fermeuse. One diver reported that a wreck site off the beach at Port Kirwan is likely to have been destroyed or covered by the extension to the wharf in that community. Other wrecks in Lumley Cove are believed to have been disturbed by dredging operations in the early 1970s. A wreck site located in 1984, now registered by the Blue Fin Dive Club, was surveyed by the NMAS dive team. The vessel (wreck site CfAf-3), in shallow water, appeared to have been stripped. The vessel may have been lost by fire or pinched in the ice and abandoned. Oral tradition in the area tells of a battle, and some informants attribute the loss to lawlessness such as the action of Kerrivan's Masterless Men in the 1790s (Horwood and Butts 1984: 125-132). Divers have reported iron shot coming from the site and local people have found other shot in their gardens.

The wreck in deeper water at Admiral's Cove, Fermeuse, requires further investigation. However, this should only be undertaken by an experienced dive team with much attention placed on diver safety, and under permit from the Historic Resources Division. A systematic survey of wreck sites in shallower water (less than 20 m), anchorage points and shoreline activity areas in Fermeuse will provide indicators on the level of maritime activities that have been continuous in Fermeuse Harbour from the early 16th century. Until this time, a paper by John Carter (1982) entitled "Spanish olive jars from Fermeuse Harbour, Newfoundland" provides the only reference of material cultural remains found in other parts of the harbour. The potential for locating significant historical resources is fairly high in Fermeuse, on land, along the shoreline and under water.

ACKNOWLEDGEMENTS

The Port Kirwan Project 1986 was made possible with a research permit and financial assistance from the Historic Resources Division, Department of Culture, Recreation and Youth, and additional funding from the NMAS. Much credit for the success of the survey should be given to many volunteer groups

and individuals who supported the project. I have mentioned some of the people in this report, but find it difficult to thank everyone adequately for their generosity; people gave their time to assist in the work, expensive equipment was made available, and multidisciplinary expertise was freely given. I would like to thank the local citizens of Port Kirwan who provided boats and equipment and showed such a great interest in the project by setting up a site watch programme; Memorial University's Departments of Chemistry, for analysing the contents of two earhtenware vessels; Earth Sciences, for thin sectioning ballast rock samples and identifying microfossils; Biology, for identifying marine growth on ballast; Geography, for cartographic services and analysing economic trade patterns; Folklore, for assistance with the graveyard study. Additional assistance was supplied by Memorial University's Centre for Newfoundland Studies and several oceanographers, geologists, engineers in metal corrosion studies, and divers from the Marine Sciences Research Laboratory.

An ecological study was performed by Dr. Derek Keats; Brian McShane produced preliminary analysis of the condition of two guns; a preliminary geological investigation at Port Kirwan was performed by David Roberts, assisted by Gerard Smith. Despite the poor underwater conditions, David Roberts and Ian Webster produced an excellent photographic record of the wreck on colour print and slide film. Vernon Barber and Ed O'Reilly took black and white film. I took the photographic record of surface/land activities and of all artifacts recovered. Filming of the black-and-white video recording of the site was done by Ken Manning, assisted by Rick Prowse and Greg Harvey, with video-recording equipment provided by Sub-Aqua (1982) Ltd. Captain Eugene Brothers made the M.V. Kim and Lisa available for the video recording and Tom Wright assisted in taking the divers to the site in his fishing boat.

Mary Vavasour assisted me in all stages of artifact conservation, with Rose Smart, Newfoundland Museum Conservator assisting us in establishing suitable procedures. I would like to thank crew chiefs Joe LeClair and Gerard Smith for their ability in problem-solving. Atlantic Marine Ventures gave outstanding service, providing tanks and air, daily transportation, and the fully-equipped dive boat Venture with its diligent crew who were asked to work under many adverse conditions. Particular thanks are extended to Captain Joe Mokry, Diving Officer. His confident and responsible command of diving operations allowed me to just get grey hairs over the archaeology. Great praise is due to the dive team, who included Vernon C. Barber, Rodney Fagan, Shirley Fiander, Brian Fleming, Robert Kinsella, Sarah-Marie Loupe, John McGreevy, Ed O'Reilly, Cynthia O'Toole, David N. Roberts, Andrew Ross, Ed Stack, and Ian Webster. Together with Joe LeClair, Gerard Smith, Joe Mokrey and the crew of Venture, the group possessed fortitude and willingness to operate under very difficult diving conditions. The ability of people to adapt quickly to the new learning experience, to work as a unit with patience and understanding, and for so many to give commitment to the Port Kirwan Project is a remarkable achievement. The entire project was a valable contribution to underwater archaeology in Newfoundland.

APPENDIX

SUCCESSFUL DIVER COLLABORATION

On the Port Kirwan Project it was important to have a qualified Diving Officer/Diving Supervisor, a diving instructor who had experience with groups of divers on deep open water dives. In addition, the Diving Officer needed qualified dive marshals and stand-by divers to provide support. This was done through a collaborative agreement between the NMAS and Atlantic Marine Ventures, a diving/charter boat business operating out of Quidi Vidi/St. John's. This arrangement provided a fully equipped dive boat, dive tanks, ground transportation and the required support personnel. Captain Joe Mokry was the Diving Officer. Although I had not worked previously with Atlantic Marine Ventures, the arrangement worked well with rapid communication of ideas and an ability to provide resolutions to problems.

Both archaeological crew chiefs were divers, with degrees in anthropology/archaeology from Memorial University. Neither had worked on an underwater site, but one had field experience with historical material from the land site at Red Bay, Labrador. Both crew chiefs volunteered two weeks of their time to the Port Kirwan Project.

Sport divers, who formed the volunteer dive team, had different backgrounds and experience. All divers had some experience of diving to the 27 m level. Three divers had worked on earlier NMAS surveys and one other had worked with Parks Canada at Red Bay. Unfortunately, the dive team had only one opportunity to meet before fieldwork started. Each diver had an orientation dive on the site which served both as a check out dive and as an introduction to archaeological procedure, which included instructions to adjust buoyancy on the ballast mound so as not to disturb the site with excessive finning action, and not to pick up artifacts unless directed.

Secondly, the divers were given to understand the importance of writing individual field notes and to describe the association of artifacts and features. This was done in the process of briefing/debriefing, both individually and with group interviews with the Project Director and the crew chiefs. This was done aboard ship, with divers completing the write-up of their fieldnotes before they left the site. The second dive was generally a work dive, to familiarize team members in carrying bags and equipment and to fulfill a task such as removing weed, numbering the guns, or tagging artifacts. After this, a new team member was buddied with a more experienced person to undertake basic triangulation measurements. Photography was undertaken first thing in the morning, when visibility was best. Team members with skills in underwater photography were encouraged to participate.

Although these approaches to training were time consuming and exhausting to everyone involved, the response was rewarding. Normally, the recommended training procedure would take two weeks. This basic training was done in three dives. Provided that an explanation of the objectives was outlined and the results were made available as a developing process within a day, the divers worked as a cohesive unit. It was imperative that each dive group had discussed every move of the proposed dive and reached agreement on who should record the data before they descended the shot line. In addition, the Diving Officer was aware of the complete dive plan and could reinforce safe diving protocol. Divers learned to work together with speed and accuracy, to report possible inaccuracies in data recording and recommend improvements to the system. This can be considered quite remarkable from a group of highly individualistic divers. Few personality differences interfered with diving operations, but great care was taken to match diving partners to ease this potential difficulty.

In addition to the regular dive team it was possible to accommodate visiting divers who could give advance notice of their intention, who wanted to assist but could not participate for 5-10 day schedules. The Blue Fin Dive Club from St. John's was particularly helpful in this respect. These divers removed weed from the site and others undertook searches for activity areas in Admiral's Cove. Sub Aqua (1982) Ltd. made an underwater black-and-white video recording of the site for the NMAS. In various ways the three leading dive stores in St. John's provided services in kind to the project. This response from the diving community was sincerely and freely given. Thirty-seven divers came on the Port Kirwan Project 1986. A total of 150 person dives were undertaken, with 19 days spent in the field. It appears likely that the self-governing processes within the diving community on the east coast of Newfoundland will limit disturbance to the site.

PROBLEMS OF DEEPER DIVING IN UNDERWATER ARCHAEOLOGY

The potential problems of deeper diving (20+ m) on archaeological projects in Newfoundland and Labrador cannot be underestimated. The site in Admiral's Cove (depth 27 m) required diving from a boat that provided a secure platform and had a mooring system that would not drag. Although the site is sheltered from most prevailing winds, southeasterly swells produced at the end of a hurricane, combined with winds from the northeast and fog, provided additional difficulties on the project in August 1986. The water temperature reached a maximum of 14°C on the surface. However, for the majority of the time, a distinct thermocline was encountered at the 15-20 m level, when consistent 4°C temperatures were recorded. Most divers had dry suits, but those with wet suits became chilled which resulted in increased air consumption. This tended to increase the risk of decompression sickness. A small changing area and warm beverages were made available and no cases of hypothermia were recorded.

Low visibility and reduced light intensity produced apprehension in some divers. The knowledge that two large wolf fish were resident in the area did not improve the situation. There was a lack of any visible features if divers left the wreck to explore the periphery of the site; disorientation occurred easily. It was decided that divers should be confined to the wreck area, where the guns were numbered and the datum line brought them back to the line for a controlled ascent. However, swells and continuous winds were limiting in the event of a rescue situation. There was one notable non-fatal diving incident. The responsible action on the part of the dive buddy, an instructor, enabled both divers to reach the surface safely. The ascent rate was undoubtedly faster than the prescribed limit and rescue operations took place in less than ideal conditions. The seriousness of effecting a rescue from deep water, even if the site is comparatively close to St. John's where there is a recompression chamber, must be considered very carefully for every archaeological operation on an underwater site.

During the project another disquieting situation arose. Diving safety rules had been put in place, a copy of the document was provided to each member of the team and the rules were discussed. The divers' times were limited to a maximum of 25 minutes. In practice, it was suggested that a typical dive profile would be: 1.5-2 min for descent, 20-21 min on the site, 1.5-2 min ascent to the 10' safety stop, 1 min safety stop, and ascent to the surface. Divers were instructed to return to the surface with a minimum of 400-500 p.s.i. in their tanks. There were several occasions when certain "goal-oriented" divers overextended the time limits. These divers were cautioned and warned of the risk to the buddy and those who could be obliged to rescue them. However, one diver persisted in extending the limit and it was necessary to direct that this person not participate in diving operations on the following day.

From several years' experience as Project Director for the NMAS, I believe that avocational archaeologists (sport divers) undertaking underwater archaeological projects should adopt diving practices universally accepted by the scientific community. It is recommended that both professional and avocational archarologists who dive implement the _Canadian Association for Underwater Science Standard of Practice for Scientific Diving_.

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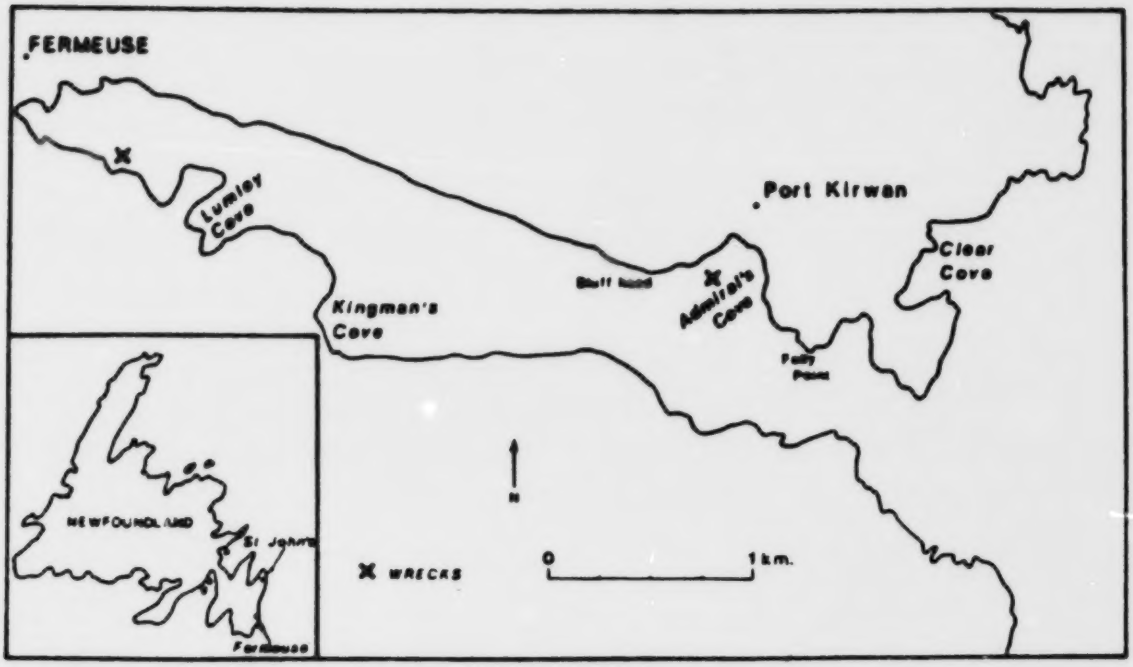
FERMEUSE
Lumley Cove
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Bluff Head
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Port Kirwan
Clear Cove
N
X WRECKS
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NEWFOUNDLAND
St John's
Fermeuse

Figure 1. Fermeuse Harbour, showing the location of the two wreck sites surveyed in 1986 (Map prepared by Student Chapter, ACSM, Memorial University).

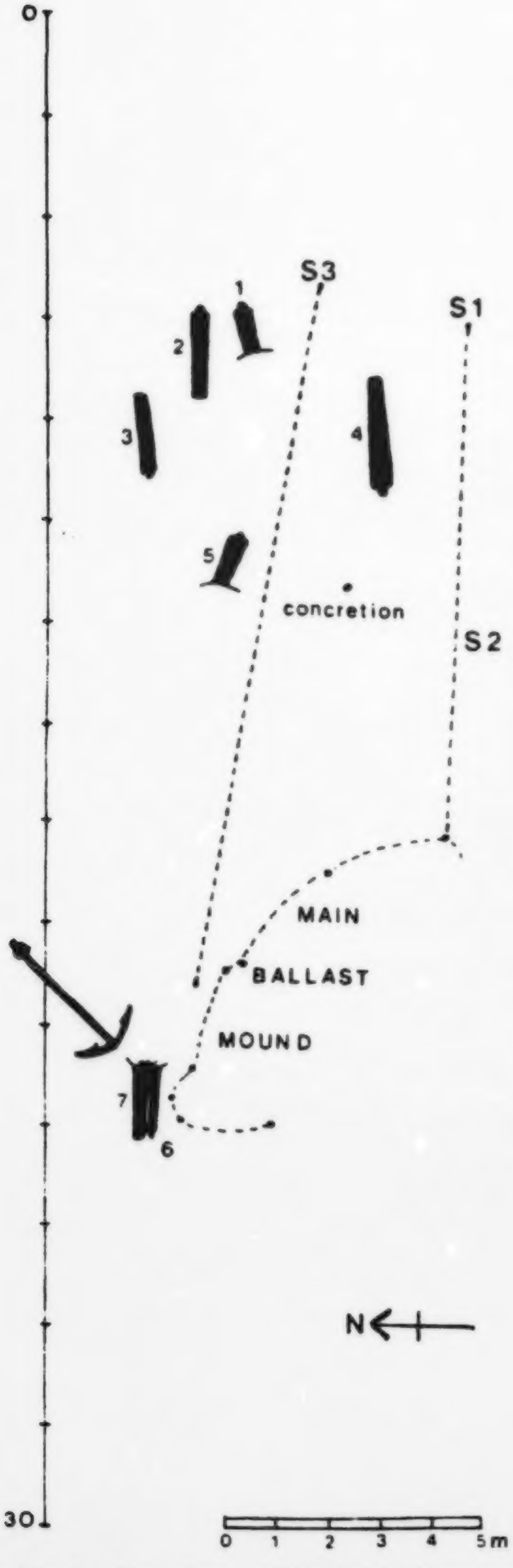
0
S3
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Figure 2. Initial site plan of the Port Kirwan wreck site (CfAf-1). Datum line (0-30) lies approximately east/west.

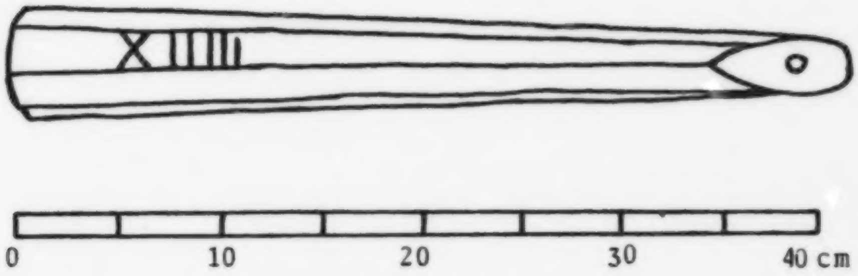
XIIIII
0
10
20
30
40 cm

Figure 3. Octagonal sounding lead (CfAf-1: 22). Length 41 cm, weight 5.74 kg (14lb 12oz).

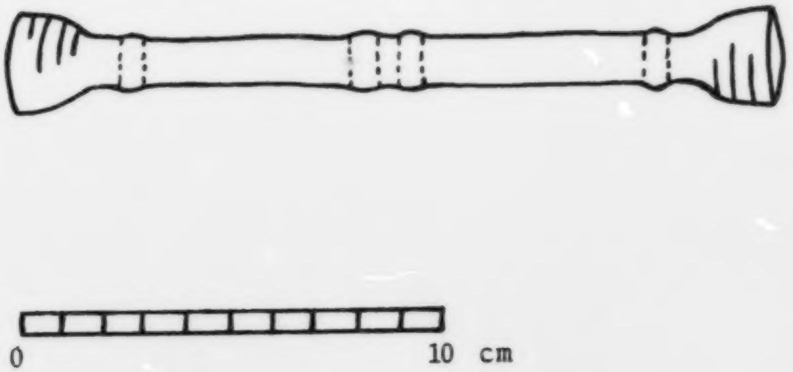

Figure 4. Brass pestle (?) (CfAf-1: 13). Length 18 cm.

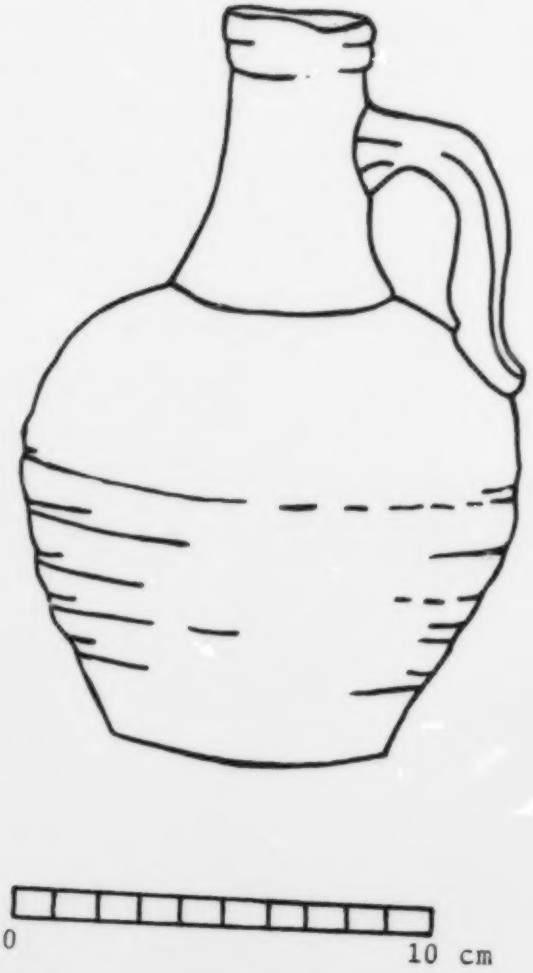

Figure 5. Earthenware jug (CfAf-1: 10). Pink fabric with white slip/possible glaze. Height 16 cm. Similar form to CfAf-1: 11. Height 16.5 cm, capacity 460 ml.

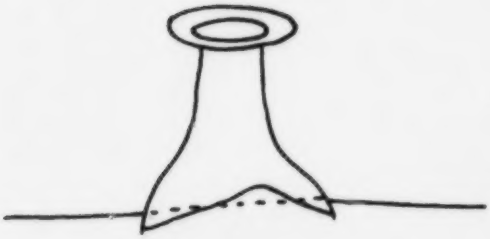

Figure 6. Clear (?) glass container, projecting ca. 6 cm from mud. Located close to sounding lead (CfAf-1: 22).

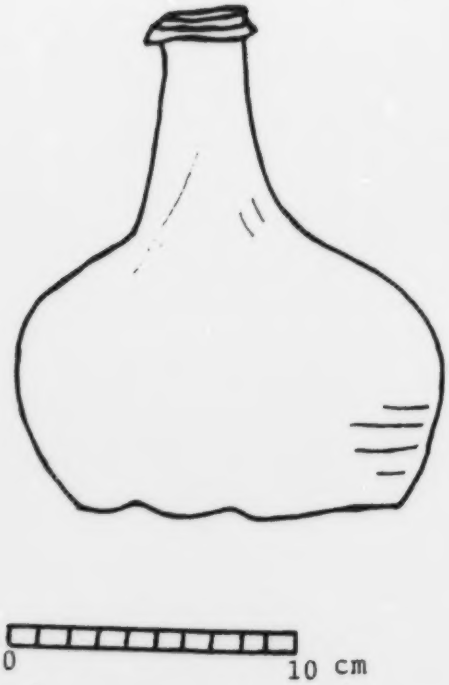

Figure 7. Green blown-glass bottle (CfAf-1: 25), ca. 1690-1710 (Noel Hume 1961).